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Weight Gain after Bariatric Surgery

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SURGERIES AND CARDIOVASCULAR SYSTEM



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Psychological Factors Involved in Weight Gain after Bariatric Surgery. Systematic Review

By Marcelo Barros Weiss (WEISS MB) & Priscilla Azalim Villa Real (REAL PAV)

Abstract- Obesity (WHO, 2019), is an incurable and chronic pathological condition, of degenerative evolution, which affects thousands of people around the world. The objectives of the study are to analyze the psychological factors in patients undergoing bariatric surgery who have gained weight and to relate adherence to the multidisciplinary team as a cause. This is a systematic literature review research with articles in the databases: Scientific and Technical Literature of Latin America and the Caribbean, National Library of the United States, MEDLINE and in the Scientific Eletronic Library Online database, with descriptors: "Postoperative Bariatric Surgery", "Psychology and Bariatric Surgery" and "Weight Gain after Bariatric Surgery" associated with the Boolean operator AND. Between 2017 and 2022, a total of 794 articles in Portuguese, Spanish and English were analyzed. We excluded 760 articles because they were not within the focus of this review, as well as those that did not meet the inclusion criteria. The final sample had 33 publications. The analysis of the data demonstrated unequivocally that the abandonment of psychological and nutritional counseling contributed decisively to the weight gain of patients.

Keywords: *post bariatric surgery; psychology and bariatric surgery; weight regain after bariatric surgery.*

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PSYCHOLOGICAL FACTORS INVOLVED IN WEIGHT GAIN AFTER BARIATRIC SURGERY SYSTEMATIC REVIEW

Strictly as per the compliance and regulations of:



Psychological Factors Involved in Weight Gain after Bariatric Surgery. Systematic Review

Factores Psicológicos Implicados En El Aumento De Peso Después De La Cirugía Bariátrica. Revisión Sistemática

Marcelo Barros Weiss (WEISS MB) ^α & Priscilla Azalim Villa Real (REAL PAV) ^ο

Resumen- La obesidad (OMS, 2019), es una condición patológica incurable y crónica, de evolución degenerativa, que afecta a miles de personas en todo el mundo. Los objetivos del estudio son analizar los factores psicológicos en pacientes sometidos a la cirugía bariátrica que han aumentado de peso y relacionar la adherencia al equipo multidisciplinar como causa. Esta es una investigación de revisión sistemática de la literatura con artículos en las bases de datos: Literatura Científica y Técnica de América Latina y el Caribe, Biblioteca Nacional de los Estados Unidos, MEDLINE y en la base Scientific Eletronic Library Online, con descriptores: "Cirugía Bariátrica Postoperatoria", "Psicología y Cirugía Bariátrica" y "Aumento de Peso después de la Cirugía Bariátrica" asociados al operador booleano AND. Entre los años 2017 a 2022 se analizaron un total de 794 artículos en los idiomas portugués, español e inglés. Se excluyeron 760 artículos por no encontrarse dentro del foco de esta revisión, así como también aquellos que no cumplieron con los criterios de inclusión. La muestra final tuvo 33 publicaciones. El análisis de los datos demostró de manera inequívoca que el abandono del asesoramiento psicológico y nutricional contribuyó de manera determinante en el aumento de peso de los pacientes.

Palabras Clave: postoperatorio de cirugía bariátrica; psicología y cirugía bariátrica; aumento de peso después de la cirugía bariátrica.

Abstract- Obesity (WHO, 2019), is an incurable and chronic pathological condition, of degenerative evolution, which affects thousands of people around the world. The objectives of the study are to analyze the psychological factors in patients undergoing bariatric surgery who have gained weight and to relate adherence to the multidisciplinary team as a cause. This is a systematic literature review research with articles in the databases: Scientific and Technical Literature of Latin America and the Caribbean, National Library of the United States, MEDLINE and in the Scientific Eletronic Library

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Keywords: post bariatric surgery; psychology and bariatric surgery; weight regain after bariatric surgery.

1. INTRODUCCIÓN

La obesidad es una enfermedad crónica degenerativa e incurable según la Organización Mundial de la Salud (SBEM, 2020). Se trata de un gran desafío para la salud pública mundial (Hruby et al., 2015). Es multifactorial, causando diversos problemas a la salud y trayendo muchas complicaciones físicas y psicológicas. La diversidad de esta enfermedad es muy grande con diferentes presentaciones, tanto en la intensidad de la obesidad como en sus formas de desarrollo con el pasar de los años (Macedo et al., 2019).

En todo el mundo, un total de 1,9 billones de adultos son considerados con sobrepeso y 609 millones son obesos. Actualmente, el 39% de la población mundial se encuentra fuera del peso ideal (Chooi et al., 2018).

Se relacionan a la obesidad las enfermedades de tipo respiratorias, cardiovasculares, articulares y dermatológicas, asociada a la aparición de dislipemia, diabetes no insulino dependiente y ciertos tipos de cáncer que forman parte del espectro de enfermedades conexas con la obesidad en todo el planeta. Siempre se debe tener en cuenta que los niveles de obesidad varían de una región a otra, y que hay aspectos biopsicosociales involucrados (Moura et al., 2021).

La cirugía bariátrica se ha convertido cada año en un método popular y muy eficaz para reducir el peso de las personas obesas, además de controlar sus morbilidades relacionadas. En cirugía, la idea es promover la reducción de la ingesta de volumen o de su

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absorción, y también la asociación de los dos medios con técnicas mixtas. La reducción del Índice de Masa Corporal ($IMC = kg/h^2 (m)$) es el principal objetivo de forma práctica, pero sus efectos a largo plazo traen consigo el control de las enfermedades somáticas ya mencionadas y del control, al menos en la mayoría, de los problemas psicológicos desarrollados como resultado de la obesidad. Un individuo que supera los $30 kg/m^2$ se considera obeso (Cassin et al., 2020).

La Organización Mundial de la Salud (2019) clasifica la obesidad en: grado I (sobrepeso moderado), IMC entre 30 y $34,9 kg/m^2$; obesidad grado II (obesidad moderada) con un IMC entre 35 y $39,9 kg/m^2$ y obesidad grado III (obesidad mórbida) con un IMC superior a $40 kg/m^2$ (Bardal et al., 2016).

Un análisis de datos del Instituto Brasileño de Geografía y Estadística (IBGE, 2019) mostró que 95,9 millones de brasileños tienen sobrepeso, de los cuales 41,2 millones son considerados obesos. Eso significa que el 60,3% de los brasileños mayores de 18 años tienen sobrepeso o están obesos (PNS Brasil, 2020). Estos números son considerados alarmantes para el Sistema Único de Salud (SUS), que, sumado a las morbilidades ya relacionadas, impactan fuertemente en las cuentas de salud pública.

Sin embargo, en América del Norte las cifras presentadas por "Trust for America's Health" (2020) informan un aumento en la prevalencia de la obesidad, especialmente entre las personas más jóvenes. Los individuos de 2 a 19 años tienen una tasa de obesidad del 19,3% frente al 5,5% encontrado en los años de 1970. En los adultos de 18 a 24 años hubo una prevalencia de obesidad del 18,9% frente al 37,6% de aquellos con más de 45 años. La condición de "inseguridad alimentaria" ya está siendo considerada una realidad en la población norteamericana.

Es necesario entender muy bien lo que será realizado y las modificaciones que vendrán. Por ello, además de las orientaciones técnicas, es aconsejable el acompañamiento psicológico en todas las etapas del proceso. Los pacientes consideran que el período inmediatamente posterior a la cirugía es difícil. Existe una gran expectativa con respecto al postoperatorio inmediato y el dolor que se puede presentar. Ya en el postoperatorio más tardío, los cambios rápidos que se producen, tanto en los hábitos alimentarios como en el propio organismo, acaban exigiendo al paciente una reflexión y surgen las cuestiones emocionales. Es en este momento que el trabajo psicológico/psiquiátrico es de suma importancia, involucrando al paciente y haciéndolo responsable de sus actos y transformándose, quitando viejos hábitos de su vida.

El tratamiento de la obesidad requiere de un equipo multidisciplinario, donde el papel de la psicología dentro del equipo es el de evaluar si el individuo está emocionalmente apto para la cirugía o no (Van Hout et al., 2005 y Sala et al., 2017). También el de

auxiliar al candidato a la cirugía como en la comprensión de todos los aspectos derivados del período prequirúrgico; evaluarlo en cuanto a su comprensión de la cirugía, riesgos y complicaciones, beneficios esperados, exámenes y seguimientos requeridos en el largo plazo, las consecuencias emocionales, sociales y físicas y responsabilidades esperadas, incluida la detección y el tratamiento de pacientes con o potencialmente sujetos a trastornos mentales graves (Brynt et al., 2020).

Cuadros de trastorno alimentario compulsivo, trastorno del alcoholismo, de la ansiedad o del humor están muy relacionados tanto en los textos sobre este tema como están presentes en el postoperatorio (Meany et al., 2014; Duarte-Guerra et al., 2015; de Zaan et al., 2016).

Este estudio tiene como objetivos analizar los factores psicológicos implicados en pacientes sometidos a la cirugía bariátrica y que tuvieron aumento de peso, además de establecer el grado de compromiso en el tratamiento de este con el equipo multidisciplinario como posibles factores causales del aumento de peso.

II. METODOLOGÍA

Para llevar a cabo esta revisión literaria se realizó una búsqueda bibliográfica en las bases de datos por la metodología PRISMA: Literatura Científica y Técnica de América Latina y el Caribe (LILACS), Sistema en Línea de Búsqueda y Análisis de Literatura Médica (PUBMED/MEDLINE) y en la base electrónica Scientific Eletronic Library Online (SCIELO), usando los descriptores: "Postoperatorio de cirugía bariátrica" (Post Bariatric Surgery), "Psicología y cirugía bariátrica" (Psychology and Bariatric Surgery) y "Aumento de peso después de la cirugía bariátrica" (Weight Regain After Bariatric Surgery), asociados al operador booleano AND. Todos los datos fueron recopilados, tabulados y analizados en enero de 2022 (Urrútia, 2010). Considerando los criterios de inclusión de artículos, inicialmente fueron seleccionados 794 originales disponibles en portugués, inglés y español, comprendidos entre enero de 2017 y enero de 2022 (figura 1). Estos artículos fueron seleccionados porque analizaban la relación entre aspectos del aumento de peso y sus relaciones con las psicopatologías y la adherencia o no al equipo multidisciplinario. Los artículos incluidos pueden ser ensayos clínicos, estudios de cohortes, cohortes históricas o estudios de casos y controles. Los artículos como Narrativa, Editorial, Carta al Editor, Comunicación preliminar o reporte de casos fueron excluidos. De cada artículo se extrajo la siguiente información: autor, año de publicación, número de pacientes, tiempo de seguimiento, casos de estudio, metodología aplicada y resultados. Los resultados de los estudios fueron analizados descriptivamente.

Diagrama de flujo de recopilación de datos

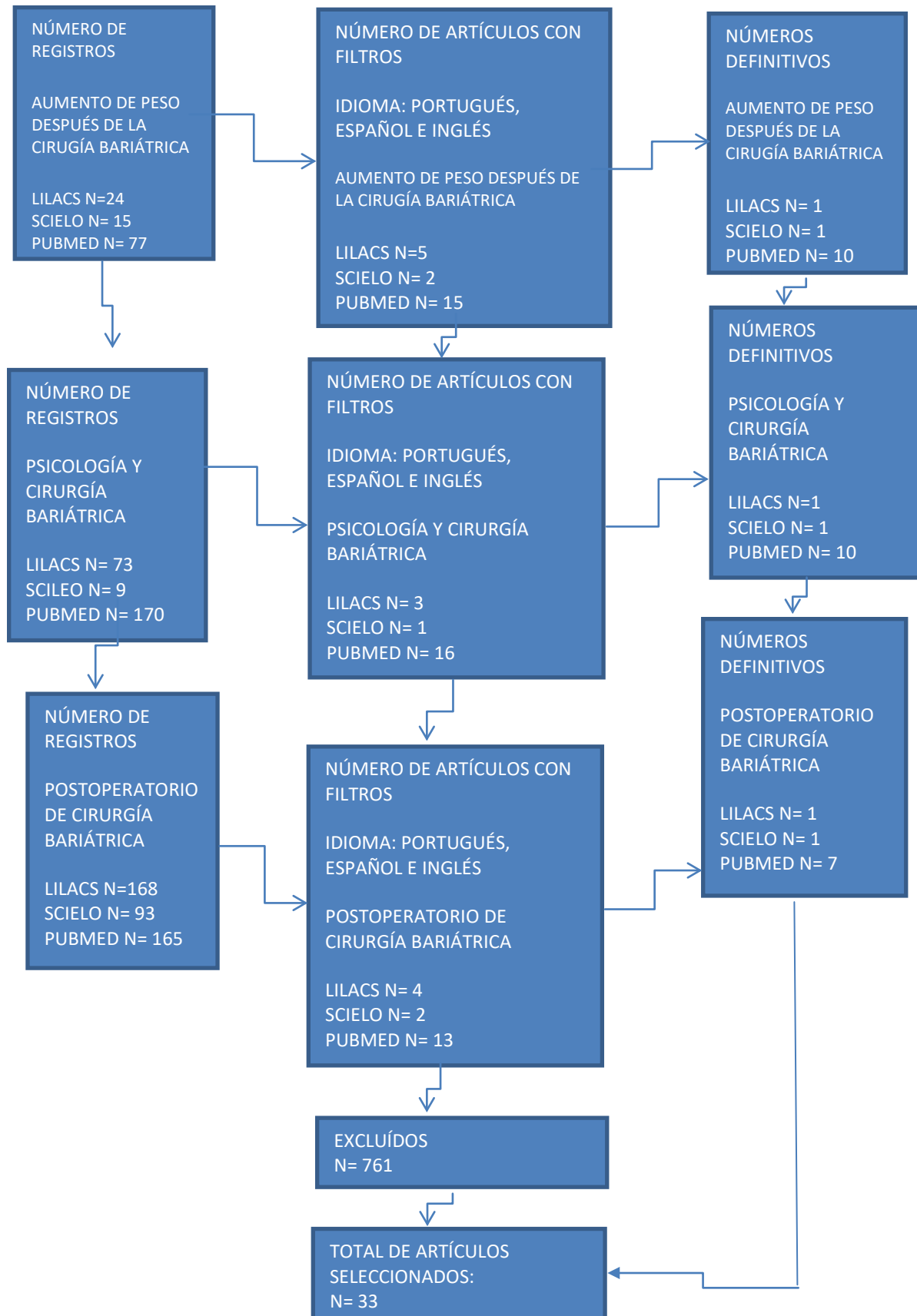


Figura 1

Se excluyeron del total 761 artículos, ya que no contemplaban el foco de esta revisión, así como los que estaban repetidos (22) y los que tenían textos incompletos. Después de analizar el título, el resumen y los objetivos del estudio se seleccionaron 33 artículos para la muestra final.

Todos los resultados fueron tabulados; ellos mostraron los elementos que formaban parte de la idea sobre el tema. La discusión de estos resultados se realizó a partir de la referencia publicada y sus relaciones con los artículos seleccionados, presentando los puntos principales y sus posibles diferencias, demostrando así su relevancia para este estudio.

Los artículos fueron debidamente referenciados, identificando y respetando a sus autores

y coautores, observando el rigor ético y la propiedad intelectual con las debidas citas de las obras consultadas.

III. RESULTADOS Y DISCUSIÓN

Se encontraron 33 artículos seleccionados en la base de datos LILACS; MEDLINE/PUBMED y SCIELO, que se resumen en las tres tablas siguientes. Las tablas muestran las evoluciones anuales de los artículos publicados desde enero de 2017 hasta enero de 2022, así como las principales observaciones de las publicaciones relacionadas y sus impactos como factores relacionados con el aumento de peso en pacientes posbariátricos.

Tabla 1: Palabras clave: Aumento de peso después de la cirugía bariátrica (12 artículos)

Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Paul et al. (2017)	Cognitive behavioral therapy and predictors of weight loss in bariatric surgery patients	PUBMED	Investigación de predictores de aumento de peso después de la cirugía bariátrica. Revisión de literatura	20 artículos	Se necesitarán más estudios en terapia conductual para evaluar su eficacia en el control del aumento de peso
Kortchmar et al. (2018)	Reganho de peso após a cirurgia bariátrica: um enfoque da fenomenologia social	SCIELO	Investigación cualitativa realizada en un Hospital Público de la ciudad de São Paulo. La recolección de datos se realizó entre marzo y mayo de 2017, a través de entrevistas y testimonios.	17 pacientes	Las experiencias de aumento de peso se destacan en el grupo estudiado y podrían apoyar la mejora de las prácticas profesionales del equipo multidisciplinario.
Shukla et al. (2018)	Current concepts in management of weight regain following bariatric surgery	PUBMED	Estudio de revisión de la literatura que vislumbró aspectos involucrados en la recaída de peso después de la cirugía bariátrica.	32 estudios	Se necesitan más estudios prospectivos para determinar la mejor manera de evaluar la combinación de terapias conductuales y farmacológicas, aún más allá del momento del tratamiento.
Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Nascimento, (2019)	Transtorno do uso de álcool em pacientes submetidos a cirurgia bariátrica	LILACS	Estudio observacional retrospectivo que incluyó pacientes y acompañados en la consulta ambulatoria de Endocrinología	47 pacientes	Observaciones relevantes en relación a la aparición de trastornos alimentarios y alcohol.

Sarwer et al, (2019)	Psychopathology, disordered eating, and impulsivity as predictors of outcomes of bariatric surgery	PUBMED	Estudio de revisión de literatura que vislumbró aspectos psicopatológicos involucrados en la recaída de peso	43 estudios	Varios estudios sugieren que la presencia de psicopatología preoperatoria se asocia con pérdida de peso subóptima, complicaciones posoperatorias y resultados psicosociales desfavorables.
Constant et al. (2020)	Meeting of Minds around Food Addiction: Insights from Addiction Medicine, Nutrition, Psychology and Neurosciences	PUBMED	Esta revisión, centrada en la adicción a la comida (FA), considera las opiniones de expertos con diferentes antecedentes en medicina de la adicción, nutrición, psicología de la salud y neurociencias del comportamiento	22 estudios	Las intervenciones multinivel podrían combinar entrevistas motivacionales, terapias cognitivas conductuales y grupos de autoayuda, mientras se benefician de modernas herramientas exploratorias e intervencionistas para enfocarse en procesos neurocognitivos específicos.
Bryant et al. (2020)	The effects of bariatric surgery on psychological aspects of eating behaviour and food intake in humans	PUBMED	Revisión de la literatura de 2008 a 2018 sobre los impactos de la cirugía bariátrica en la alimentación y el comportamiento psicosocial	26 estudios	Existen varios factores que influyen en el individuo para regular con éxito su aporte energético postoperatorio, tales como: Desinhibición, Contención, Hambre, Alimentación Emocional, Alimentación Descontrolada, Psicopatología y Estado de Confort.
Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
El Ansari, Elhag. (2021)	Weight Regain and Insufficient Weight Loss After Bariatric Surgery: Definitions, Prevalence, Mechanisms, Predictors, Prevention and Management Strategies, and Knowledge Gaps-a Scoping Review.	PUBMED	Búsqueda en bases de datos PUBMED, SCIELO, EMBASE, CINAHL. Revisión del alcance	30 artículos	Existen lagunas en el conocimiento de los factores que conducen a la recuperación de peso, evaluado en todos los artículos de revisión presentados. Necesitamos más estudios.

Athanasiadis et al. (2021)	Factors associated with weight regain post-bariatric surgery: a systematic review.	PUBMED	Método PRISMA aplicado a una revisión sistemática de literatura en la base de datos PUBMED, EMBASE y COCHRANE Library en julio de 2019	32 estudios	La investigación informa que, de cada 6 pacientes, 1 tendrá una recuperación significativa del psoa. Se necesitan mejores métodos pre y postoperatorios para reducir el riesgo.
Busetto et al. (2021)	Mechanisms of weight regain.	PUBMED	Se realizó una búsqueda sistemática en MEDLINE, Google Scholar, Cochrane, National Collaborating Center for Methods and Tools (NCCMT) y Practice-based Evidence in Psychopathology and Behavior	32 estudios	El manejo de las intervenciones en pacientes que recuperan peso tiene que ser multimodal y de largo plazo.
Cornejo-Pareja et al. (2021)	Factors Related to Weight Loss Maintenance in the Medium-Long Term after Bariatric Surgery: A Review	PUBMED	Revisar estudios realizados en la base de datos PUBMED enfocados en los últimos seis años (2015-2021)	20 estudios	Las evidencias son contradictorias y se necesitan ensayos clínicos a largo plazo para sacar más conclusiones.
Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Alexandrou et al. (2022)	Revision of Roux-en-Y Gastric Bypass for Inadequate Weight Loss or Weight Regain	PUBMED	Revisión sistemática de la literatura sobre cirugía bariátrica en pacientes con aumento de peso	57 artículos	La revisión de la cirugía bariátrica es factible, pero los resultados son muy variables, principalmente debido a los muchos factores que involucran el problema

Tabla 2: Palabras clave: Psicología y cirugía bariátrica (12 artículos)

Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Marchesini et al. (2017)	A percepção do corpo em pacientes bariátricos e a experiência do medo de reganho de peso	LILACS	Se utilizó un guion de entrevista semiestructurada sobre datos demográficos, hábitos alimentarios, cambios de estilo de vida y de comportamiento, imagen corporal, prejuicio experimentado y aumento de peso	10 pacientes	A pesar de una evaluación preliminar por los pares, el miedo al aumento de peso y la percepción del propio cuerpo fueron los principales puntos observados

Al-Najim, (2017)	Food Intake and Eating Behavior After Bariatric Surgery	PUBMED	Trabajo de revisión de la literatura sobre el comportamiento hacia la comida después de la cirugía bariátrica	Artículo original	Los factores que intervienen en la adherencia o no a la dietoterapia dependen, en gran medida, de factores hormonales y biopsicosociales.
Lee et al. (2017)	Food for Thought: Reward Mechanisms and Hedonic Overeating in Obesity.	PUBMED	Narrativa sobre la vida hedónica de las personas obesas y su relación con la comida	Artículo original	Un mejor conocimiento del comportamiento hedónico de las personas obesas puede traernos mejores resultados en el control del peso.
Herpertz et al. (2017)	Psychosomatic and Psychosocial Questions Regarding Bariatric Surgery: What Do We Know, or What Do We Think We Know?	PUBMED	Revisión narrativa de artículos sobre lo que sabemos o creemos saber sobre los efectos psíquicos de la cirugía bariátrica	Artículo original	Aunque todavía sabemos poco para definir para qué paciente será beneficiosa la cirugía, los resultados son en su mayoría buenos.
Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Generali et al. (2018)	Personality Traits and Weight Loss Surgery Outcome	PUBMED	Trabajo de revisión sobre aspectos implicados en los rasgos de personalidad y pérdida de peso después de la cirugía	25 artículos	No está claro que los factores del tipo de personalidad puedan realmente alterar los resultados de la pérdida de peso en la cirugía bariátrica.
Brode et al. (2019)	Problematic Eating Behaviors and Eating Disorders Associated with Bariatric Surgery	PUBMED	Artículo original escrito a partir de 68 artículos que tratan sobre el comportamiento alimentario antes y después de la cirugía bariátrica	Artículo original	Aunque ya mostraban una conducta alimentaria desfavorable antes de la cirugía, esto todavía tiene un buen resultado en los cambios de comportamiento hacia la comida
Conceição. (2019)	Disordered eating after bariatric surgery: clinical aspects, impact on outcomes, and intervention strategies	PUBMED	Comportamiento de pastoreo en la dieta como causa de pérdida de control y aumento de peso. Revisión de 36 artículos	Artículo original	Se recomienda un vocabulario sencillo a la hora de abordar al paciente obeso, además de explicaciones claras sobre el tipo de dieta y comportamiento
Raman et al. (2020)	The Clinical Obesity Maintenance Model: A Theoretical Framework for Bariatric Psychology	PUBMED	Se ha propuesto un modelo reciente: "Clinical Obesity Maintenance Model (COMM)". Este modelo fue discutido y analizado	Artículo original	Para obtener una mejor respuesta postoperatoria, necesitamos conocer mejor los diferentes fenotipos que existen

Yeo et al. (2021)	The impact of impulsivity on weight loss after bariatric surgery: a systematic review	PUBMED	Estudio que analiza el comportamiento impulsivo como posible causa del aumento de peso tras la cirugía bariátrica	10 estudios con 1246 pacientes	De hecho, la impulsividad puede ser un factor negativo para el control del peso, pero los pacientes con estados impulsivos pueden beneficiarse
Newman et al. (2021)	Psychosocial interventions to reduce eating pathology in bariatric surgery patients: a systematic review	PUBMED	Estudio de revisión sistemática para ensayos psicosociales controlados aleatorios	50 artículos	Se necesitan estudios longitudinales adicionales para una mejor comprensión del tema

Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
González, et al. (2021)	Creencias en obesidad y cirugía bariátrica: análisis de contenido para diseñar una escala	SCIELO	Trabajo analítico longitudinal mediante cuestionario estructurado	22 pacientes	Las mujeres que tienen menos apoyo social y las que pasaron por situaciones negativas reportaron peores resultados

Tabla 3: Palabras clave: Postoperatorio de cirugía bariátrica (9 artículos)

Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Soares et al. (2017)	Práticas alimentares de pacientes em pós-operatório de cirurgia bariátrica: revisão integrativa	LILACS	Síntesis de artículos relacionados con el tema, disponibles en PUBMED, Science Direct, LILACS, Portal de Periódicos CAPES y SCIELO, considerando autores, año de publicación, objetivos, instrumentos utilizados para la recolección de datos y principales hallazgos	13 artículos de revisión	El trabajo lleva a la conclusión de que el equipo de nutrición y psicología tienen que caminar juntos para orientar a los pacientes en el postoperatorio de la cirugía bariátrica
Pizato et al. (2017)	Effect of Grazing Behavior on Weight Regain Post-Bariatric Surgery: A Systematic Review	PUBMED	Revisión sistemática realizada en 2017 en las bases de datos MEDLINE, EMBASE, Cochrane, LILACS, Scopus, Web of Science, Google Scholar, ProQuest	994 artículos	El comportamiento de pastoreo en algunos pacientes puede ser una razón para el aumento de peso, pero se necesitan más estudios

			Dissertation & Theses, e Open Grey		
Ivezaj et al. (2017)	Food addiction and bariatric surgery: a systematic review of the literature	PUBMED	Revisión de la literatura con las bases PUBMED y Scopus databases	19 artículos	Necesitamos más estudios para determinar si la adicción a la comida puede ser un factor en el aumento de peso después de la cirugía bariátrica
Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Belo et al. (2018)	Predictors of poor follow-up after bariatric surgery	SCIELO	Estudio de cohortes retrospectivo para evaluar la adherencia de los pacientes al equipo multidisciplinario	559 pacientes	El análisis permitió concluir que el seguimiento de los pacientes disminuye con el tiempo, con una mayor reducción para aquellos que eran más obesos
Nancarrow et al. (2018)	The Role of Attachment in Body Weight and Weight Loss in Bariatric Patients	PUBMED	Estudio prospectivo, observacional y transversal	195 pacientes	El apego no se relacionó con el aumento de peso postoperatorio o, incluso, con la falta de adherencia al tratamiento en comparación con el grupo control
Kaouk et al. (2019)	Modifiable factors associated with weight regain after bariatric surgery: a scoping review	PUBMED	Estudio de revisión sistemática en las bases MEDLINE, Google Scholar, Cochrane, National Collaborating Centre for Methods and Tools (NCCMT) e Evidence in Nutrition (PEN) incluyendo artículos de 1990 a 2017	22 estudios	Las herramientas de autocontrol y seguimiento de equipos multidisciplinarios pueden ser la clave para el control exitoso del peso en pacientes postoperados
Wong et al. (2020)	Change in emotional eating after bariatric surgery: systematic review and meta-analysis	PUBMED	Se utilizaron análisis sistemáticos y metanálisis con el método PRISMA	23 artículos	A medio y corto plazo, la cirugía bariátrica puede controlar el "alimento emocional", pero a largo plazo este beneficio se va diluyendo con el tiempo
Cassin et al. (2020)	Food Addiction Is Associated with Binge Eating and Psychiatric Distress among Post-Operative Bariatric Surgery Patients and May Improve in Response to Cognitive Behavioural Therapy	PUBMED	Investigación observacional de corte transversal realizada por telemedicina donde hubo mayor adherencia de los pacientes al programa de atención psicológica y alimentaria	100 pacientes	El estudio, a pesar de demostrar estadísticamente la validez del método, carece de un mayor número de participantes a mejorar

Autor	Título	Base de datos	Tipo de estudio	Muestra	Resultados relevantes
Istfan. et al. (2021)	Approach to the Patient: Management of the Post-Bariatric Surgery Patient With Weight Regain	PUBMED	Trabajo de "follow up" de 11 años de los pacientes operados. Con clasificación de riesgo de aumentar de peso. Revisión de la literatura	96 artículos	El estudio apunta a la necesidad de un seguimiento sistemático por parte del equipo multidisciplinario para un mejor resultado a largo plazo

IV. RESULTADOS Y DISCUSIÓN

Entre los 34 artículos seleccionados para el estudio, luego de aplicar los criterios de inclusión y exclusión, se presentaron en las tablas 1, 2 y 3 las publicaciones seleccionadas que tuvieron mayor número de publicaciones donde se encuentra el año 2020, seguidas de las contenidas en los años 2018, 2019 y 2021. Sin embargo, el año 2017 tuvo menor frecuencia de estudios seleccionados, mientras que el año 2022 tuvo solo un artículo publicado hasta la fecha de cierre de las informaciones recogidas.

En la búsqueda de artículos en las Bases de Datos, 28 artículos fueron del índice MEDLINE/PUBMED, 3 de SCIELO y 3 de LILACS y, en relación a información y consultas en revistas, encontramos una gran variación entre publicaciones nacionales e internacionales, especialmente en lo que se refiere a método.

En la investigación hubo un mayor número de publicaciones internacionales, lo que reafirma el interés de toda la comunidad científica en la materia, principalmente por profesionales de la Psicología.

Las tablas 1, 2 y 3 presentadas anteriormente exponen una muestra diversificada de trabajos concerniente a los resultados finales. Pudimos observar y estudiar los diversos procesos psicopatológicos involucrados en el proceso de aumento de peso. El dato encontrado más relevante, y comentado reiteradamente, es la importancia del seguimiento del equipo multidisciplinar (Conceição, 2020).

En general, el estudio tuvo como objetivo describir las percepciones de las personas que se sometieron a la cirugía bariátrica y analizar los factores que afectan el resultado de la pérdida de peso en los que fueron operados, evaluando los impactos psicológicos en las personas que se sometieron a la cirugía bariátrica y los factores que conducen a la recuperación del peso.

Hubo diversidad en relación a los aspectos metodológicos, sin embargo, 8 artículos fueron estudios de campo del tipo prospectivo analítico, de los cuales 4 fueron metanálisis y los otros 4 fueron artículos originales; y 22 investigaciones de revisión sistemática de la literatura. Las investigaciones de tipo entrevistas

estructuradas se incluyó en este trabajo como parte del análisis, pero solo aquellas realizadas en pacientes postoperatorios de cirugía bariátrica.

Evaluando las consideraciones de los autores, los juicios de valor están directamente relacionados con los sentimientos como la causa del fracaso en la cirugía bariátrica. Las personas comen por ansiedad, mastican por felicidad, incluso sin sentir hambre (Paula et al., 2017).

Los estudios realizados analizaron la relación entre imagen corporal y la pérdida de peso asociada a los síntomas depresivos en un grupo de cirugía bariátrica y encontraron que inicialmente los pacientes solo deseaban la pérdida total de peso, sin embargo no estaban preparados psicológicamente para el postoperatorio y comenzaron a sentirse negativamente afectados por la imagen actual, llevándolos a cuadros de deconstrucción de su propia imagen, no reconociéndose a sí mismos, provocando baja autoestima. Todo esto refuerza la importancia de los profesionales de la psicología en el equipo multidisciplinario para tratar a estos pacientes (Kaouk et al., 2019; Nancarrow et al., 2018; Al-Najim, 2017).

Incluso, siendo la cirugía bariátrica el procedimiento más realizado en el mundo para el control de peso —donde se observa que el control de la ansiedad es muy inferior al esperado a medio largo plazo, permitiendo la aparición de trastornos alimentarios severos como los trastornos alimentarios compulsivos, régimen de pastoreo y transformación de la dieta que puede influir negativamente en la pérdida y ganancia de peso después de dos años de la cirugía—; existe unanimidad en los estudios de que estos pacientes necesitan un seguimiento psicológico permanente en el postoperatorio (Pizato et al., 2017; Kaouk et al., 2019; Istfan et al., 2021).

Las observaciones realizadas en los trabajos también abordan el estudio de fenotipos cerebrales específicos que podrían representar anomalías en el proceso de recompensa y control como causa del aumento de peso en pacientes operados. Se necesitan más investigaciones para corroborar este estudio que parece prometedor (Lee et al., 2017; Linda, 2017; Aymery, 2020; Constant et al., 2020).

Se estudió el desequilibrio metabólico en pacientes operados, asociado a conductas compulsivas como causa del aumento de peso. El consumo de energía postoperatorio es inferior al esperado y esta brecha entre oferta y consumo lleva a creer en una adaptación metabólica. Tal condición puede ayudar a explicar otra razón para las pérdidas de peso insuficientes (Bussett et al., 2021).

También se estudió la impulsividad de estado o la acción impulsiva, donde se verificó que las terapias cognitivas comportamentales ayudan mucho en el control y que la impulsividad de rasgo puede, incluso, ser utilizada como aliada en el tratamiento psicológico y como herramienta de estímulo para la actividad física en el postoperatorio (Kouk et al., 2019; Yeod et al., 2021).

V. CONCLUSIONES

Este trabajo tuvo la intención de aumentar el conocimiento sobre el tema sin ningún conflicto de intereses. Llevando el debate a los posibles factores que conducen a los pacientes sometidos a cirugía bariátrica a aumentar de peso. Es importante recalcar que los datos encontrados en estudios de varios países señalan, de manera inequívoca, que la ausencia de un equipo multidisciplinario en el postoperatorio es el gran villano. El abandono del tratamiento y el acompañamiento a largo plazo se identificó como la principal razón para la recuperación de peso.

Factores asociados como los trastornos alimentarios presentes en los pacientes, se vuelven más intensos y más difíciles de controlar cuando el paciente abandona el acompañamiento clínico. Se encuentran diferentes perfiles psicológicos en los grupos de pacientes estudiados y que cuanto más obesos y más prolongado es el inicio de la obesidad, más probable es que aumenten de peso y presenten trastornos alimentarios en el posoperatorio tardío, sobre todo sin un adecuado seguimiento multidisciplinario.

La vida actual está llena de exigencias y de normas instituidas por la propia vida en comunidad. Los pacientes crean escudos y justificaciones para no hacer un seguimiento con el equipo, y sobre todo la atención a los aspectos psicológicos implicados en la génesis del aumento de peso. Pacientes perecieron en la medida en que abandonaron el acompañamiento.

La estructuración del equipo de nutrición, psicología y atención médica especializada es la clave para el control efectivo de la mayoría de los pacientes. Se necesitan más estudios que corroboren los aspectos aquí planteados, por ello nos parece bastante relevante en el tema la necesidad de mantener el seguimiento psicológico y el equipo multidisciplinario en el control de la recuperación de peso en los pacientes operados de cirugía bariátrica.

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Subdiaphragmatic Abscess: Complication of Emergency Laparotomy

By Dr. Abhijeet Dilip Kharche, Dr. Sriranjani Iyer & Dr. Saileshwar Natarajan

Abstract- Intra-abdominal abscesses usually occur following any intra-abdominal surgery, trauma, Gastrointestinal infection or intestinal perforation. In particular, the diagnosis of sub-phrenic collection can be notoriously difficult. This fact is expressed by the well-known aphorism: 'Pus somewhere, pus nowhere else, pus under the diaphragm'. Sub-diaphragmatic abscesses form between the diaphragm and abdominal organs, such as the liver and spleen. Depending on the severity of the sub-diaphragmatic abscess and the cause, treatment method may vary for each case. The abscess may be treated with early percutaneous drainage and empiric intravenous antibiotics. When dealing with post-operative persistent pyrexia that does not react to antibiotics, surgeons must always be careful, and the likelihood of a sub-diaphragmatic abscess must always be considered. If not treated, thoracic and abdominal complications may prevail, in rare cases, death. We present a case of sub-diaphragmatic abscess in a patient with a perforated duodenal ulcer treated by ultrasound-guided percutaneous drainage with a good outcome.

Keywords: sub-phrenic, abscess, drainage, post-operative.

GJMR-I Classification: LCC Code: AC4



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Subdiaphragmatic Abscess: Complication of Emergency Laparotomy

Dr. Abhijeet Dilip Kharche ^α, Dr. Sriranjani Iyer ^σ & Dr. Saileshwar Natarajan ^ρ

Abstract- Intra-abdominal abscesses usually occur following any intra-abdominal surgery, trauma, Gastrointestinal infection or intestinal perforation. In particular, the diagnosis of sub-phrenic collection can be notoriously difficult. This fact is expressed by the well-known aphorism: 'Pus somewhere, pus nowhere else, pus under the diaphragm'. Sub-diaphragmatic abscesses form between the diaphragm and abdominal organs, such as the liver and spleen. Depending on the severity of the sub-diaphragmatic abscess and the cause, treatment method may vary for each case. The abscess may be treated with early percutaneous drainage and empiric intravenous antibiotics. When dealing with post-operative persistent pyrexia that does not react to antibiotics, surgeons must always be careful, and the likelihood of a sub-diaphragmatic abscess must always be considered. If not treated, thoracic and abdominal complications may prevail, in rare cases, death. We present a case of sub-diaphragmatic abscess in a patient with a perforated duodenal ulcer treated by ultrasound-guided percutaneous drainage with a good outcome.

Keywords: sub-phrenic, abscess, drainage, post-operative.

I. INTRODUCTION

Intra-abdominal abscesses are common after surgery, trauma, severe gastrointestinal infection, intestinal perforation, or acute pancreatitis [1, 2]. Thirty percent of episodes are related to inflammatory illnesses of the abdominal organs caused by gastric/duodenal perforation, twenty percent to the liver/biliary system, and one-third to appendicitis [1, 3]. Between the diaphragm and abdominal organs like the liver and spleen, sub-diaphragmatic abscesses occur. Surgical drainage, percutaneous drainage, and endoscopic drainage are all options for abscess drainage.

The mortality rate of a sub-diaphragmatic abscess is significant, and failing to recognize or postpone treatment might be harmful to the patient [4]. The sub-diaphragmatic purulent collection has a significant mortality rate, and if undetected or delayed, it can lead to intra-thoracic problems [5]. Fever with chills and rigors, upper quadrant pain, and leukocytosis are some of the symptoms. The best way to diagnose a

sub-phrenic abscess is to use imaging, particularly a CT scan [6].

The patient is at risk of developing chronic episodes of unrelenting fever, sepsis, peritonitis, and death unless treated. Early percutaneous drainage and empiric intravenous antibiotics may be enough to treat the abscess. Surgeons must always be cautious when dealing with post-operative persistent pyrexia that does not respond to antibiotics, and the possibility of a sub-diaphragmatic abscess must always be addressed.

We report a case of sub-diaphragmatic abscess in a post-operative case of perforated duodenal ulcer treated with ultrasound guided percutaneous drainage, with a favorable post-treatment course.

II. CASE REPORT

A 48-year-old male patient came with chief complaints of pain in the abdomen, breathing difficulties, fever, loss of appetite since four days. Patient is a post-operative day 14 case of pre-pyloric perforation and was previously explored and managed by modified graham's patch repair. His pelvic drain was removed on post-operative day 3 and the abdominal drain in Morrison's pouch was removed on post-op day 5 with minimal to nil drain output. The patient was discharged in a healthy state on post-op day 7 with no complaints. On routine post discharge follow up day 3, he had no complaints and his general and per abdomen examination were satisfactory. On post-operative day 11, patient started experiencing pain in right hypochondrium and fever. Pain was dull aching, and progressively increasing in nature with spikes of low-grade fever throughout the day. Gradually he further developed breathing difficulties and loss of appetite. Patient is a known chronic cigarette smoker. Patient did not have any comorbidities.

At admission, on general physical examination, patient was febrile (38.6 degrees centigrade) with tachycardia (130/min), patient had right hypochondriac tenderness with localized guarding with a palpable lower margin of liver, Respiratory system showed decreased breath sounds on the right lower zone of the chest on auscultation. Per-Rectal examination showed no abnormalities. After initial resuscitation with Intravenous fluids, patient was investigated with routine laboratory investigations which revealed a marked inflammatory response, with a white blood cell count of 14,500 cells/

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μ l with a predominant neutrophilic differential count. A chest and abdominal roentgenogram revealed minimal right sided pleural effusion. An Abdomino-pelvic ultrasonography was then performed which revealed a

right sided sub-phrenic collection of about 1500 cc pushing liver down with minimal interbowel free fluid, most likely suggestive of infective etiology, right sub-phrenic abscess.

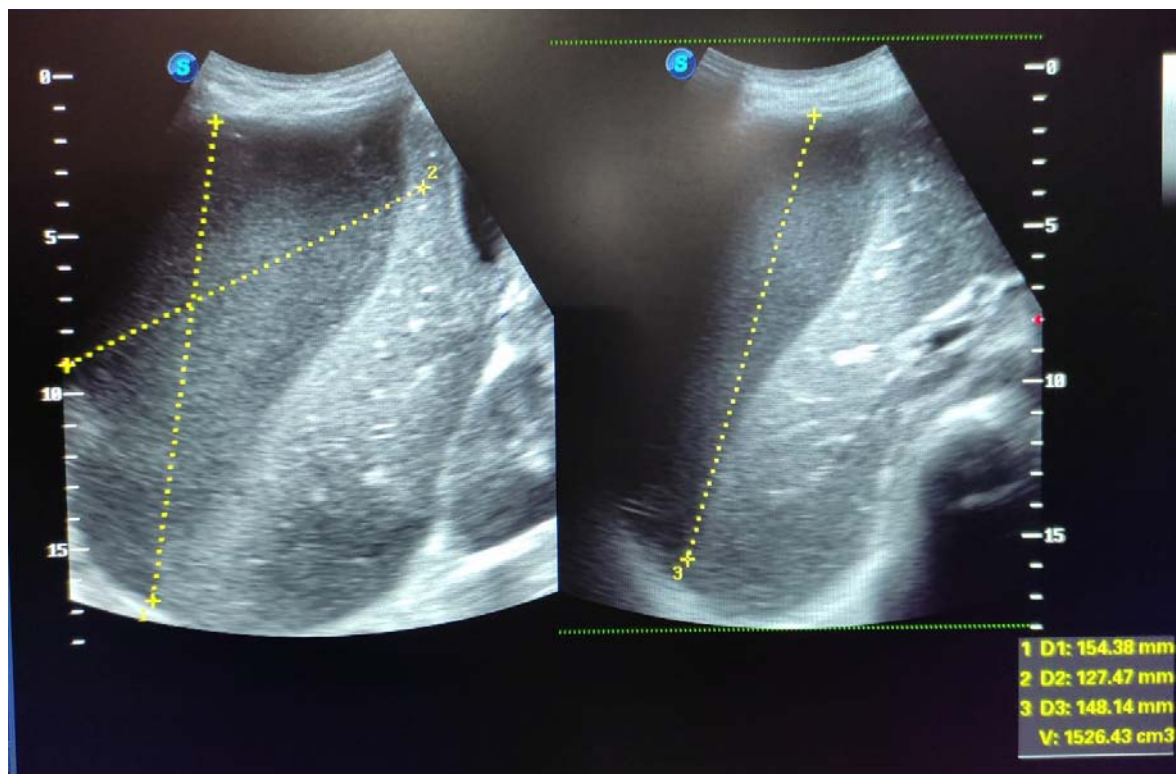


Figure 1: Ultrasonography of abdomen showing 1500cc right sub-phrenic collection pushing liver down.

The Patient was started on third-generation cephalosporin antibiotics, metronidazole, and amikacin. An Emergency percutaneous draining pigtail catheter of 16 F was inserted in the suprahepatic right subdiaphragmatic space between 11th and 12th intercostal space and fixed under ultrasound guidance, and 1100 ml frank pus was drained. Microbiological and biochemical samples for testing were collected and pus sample was sent for culture and antibiotic sensitivity. The residual pus got drained over the later 2 days. A

repeat chest and abdominal roentgenogram and abdominopelvic ultrasonography were done on day 3 of percutaneous catheterization, to look for any residual collection. With no radiological or clinical evidence of any sub-phrenic collection, the pigtail catheter was removed after 3 days. The Post-procedure course was uneventful, and patient improved clinically. The patient was later discharged and followed up and managed conservatively thereafter.



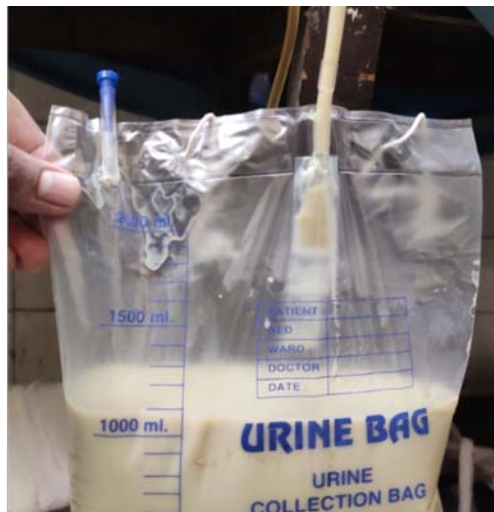


Figure 2 a and b: Pigtail catheter insertion in the right sub-phrenic space and collection of 1100cc pus.



Figure 3: Post-procedure roentgenogram of chest and abdomen showing right minimal pleural effusion and right-sided pigtail catheter in situ.

III. DISCUSSION

The area between the diaphragm and the transverse colon and mesocolon is the sub-diaphragmatic zone. The liver further divides this region into suprahepatic and infrahepatic compartments. These sub-diaphragmatic abscesses can progress to pleurisy with or without effusion, empyema, lung abscess, and bronchial fistula, as well as peritonitis and mortality in rare cases.

The difficulties are exacerbated as the clinical picture is frequently obscured by the causative disease and prior operational intervention. Pain, fever, malaise, cough, or pleural effusion are common symptoms in patients with thoracic or abdominal symptoms. In any patient with unexplained fever, tachycardia, or

leucocytosis, the likelihood of a localized intra-abdominal pus accumulation should be considered.

A perforated viscus or a distant extra-abdominal source, probably by hematogenous dissemination, might cause an abscess. Intraoperative contamination and anastomotic leakage are usually quickly disseminated throughout the peritoneal cavity, gathering in the left subphrenic area due to peritoneal fluid flow. According to Oschner and Graves' study, 31 percent of 3372 instances were caused by a ruptured appendix, and 29 percent were caused by a perforated stomach or duodenum [1]. Wetterfors discovered that 60% of his cases were related to previous surgery [7].

According to culture results, the organisms most typically found in a subdiaphragmatic abscess

were Staphylococcus, Streptococcus, E. coli, B. Proteus, and pseudomonas.

The relevance of radiological diagnostics in verifying and localizing the Subdiaphragmatic abscess is crucial. Few indications highly suggestive of a subphrenic collection include loss of diaphragmatic mobility and elevation of the diaphragm, pleural effusion, loss of posterior costophrenic angle in lateral view, gas or fluid beneath diaphragm, and enlargement of liver shadow.

The treatment technique for each patient must be determined based on the severity and origin of the subdiaphragmatic abscess. A single sufficient drainage using an extracapsular technique may be all that is required in individuals with a single, accessible, well-localized abscess [8]. Sherman et al. (1969) found a 23 percent mortality rate in patients with drainage and an 80 percent mortality rate in those without drainage [9]. If the aspiration is done low down, with the needle pointing up towards the subphrenic spaces, the lung will not be damaged. When the diaphragm is raised, it adheres to the chest wall, allowing aspiration to be conducted safely without concern of injuring the lung or contaminating the pleura. For individuals with numerous abscesses, a transperitoneal technique should be used. An upper paramedian or a subcostal incision can be used to execute this procedure. The key to efficient care of a Subphrenic abscess is early detection and appropriate drainage under the influence of antibiotics.

IV. CONCLUSION

We experienced a case of sub-diaphragmatic abscess associated with a post-operative perforated duodenal ulcer that was cured by percutaneous drainage.

Since the advent of antibiotics, spontaneous subphrenic abscess has become less prevalent, but post-surgical occurrence has become more common.

Declarations

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Treatment and Evolution of Appendicular Mucocoeles in Six Cases

By Kouakou Ibrahim Anzoua, Bernadin Kouamé Kouakou, Mamadou Traoré, Ismael Kalou Leh BI Leh BI, Ahou Bernadette N'Dri, Serge Amos Ekra, Amos Kouakou, Inza Bamba, Akowendoand Roger Lebeau & Bamourou Diané

Abstract- Purpose: To report our experience in the management of appendicular mucocoeles.

Method: Retrospective and descriptive study carried out in the Department of General and Digestive Surgery of the University Hospital of Bouaké.

Results: We recorded six cases of appendicular mucocoele. The average age of onset was 53 years. The male sex predominated. Pain in the right iliac fossa was the predominant sign. The average duration of evolution was four months. Appendectomy was performed in four patients and appendectomy with partial excision of the cecum in one patient. Histologically, three patients had a simple mucocoele, one had a mucinous cyadenoma and one had a cystadenocarcinoma. In the latter, the indication of a right hemicolectomy was recommended but the patient refused the operation. Morbidity was nil. The average follow-up time was 13 months, after which the patients were lost to follow-up.

Keywords: mucocoele-tumor-appendicectomy.

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Treatment and Evolution of Appendicular Mucocoeles in Six Cases

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Ismael Kalou Leh BI Leh BI ^ω, Ahou Bernadette N'Dri [¥], Serge Amos Ekra [§], Amos Kouakou ^χ,
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Conclusion: The treatment of appendicular mucocoele is surgical. The evolution and the prognosis are conditioned by the histological type, the surgical gesture and the peritoneal cytology.

Keywords: mucocoele-tumor-appendicectomy.

I. INTRODUCTION

Appendiceal mucocoele (AM) or mucosecretory tumor of the appendix is a pathological entity referring to cystic dilatation of the appendiceal lumen, secondary to intraluminal accumulation of mucinous, gelatinous, or translucent secretions, which may involve the entire organ or a segment of it, most often distal [1].

This condition is rare. It is observed in 0.15 to 0.6% of appendectomies and represents 7% to 8% of appendicular tumors [2]. Its treatment ranges from simple appendectomy in benign forms to right hemicolectomy for cancer in malignant mucocoeles [3].

The most serious complications are the risk of malignancy and peritoneal pseudomyxoma (PMP) in case of perforation [4,5]. The objective of this work was to report our experience in the management of appendiceal mucocoeles.

II. OUR OBSERVATIONS

Over an 11-year period from 2010 to 2020 we performed 2024 appendectomies. An anatomopathological examination of the surgical specimen was performed in 876 cases. This examination showed an appendicular mucocoele in 6 cases (0.68%). We report below the observations of these 6 patients.

Observation 1

A 44-year-old patient with no prior history of any kind visited the surgical emergency room with right iliac fossa pain that had been evolving for three days. The patient had nausea but no transit disorders. On clinical examination, the temperature was 38.5°C, the general condition was preserved and there was pain and tenderness in the right iliac fossa. Clinically the diagnosis of appendicular syndrome was retained. The sedimentation rate was accelerated with figures of 50 at the first hour and 75 at the second hour. On the blood count, the white blood cell count was 10500/mm³. Abdominal ultrasound revealed pain in the right iliac fossa when the probe was passed, and a thick-walled non-compressible appendix. The diagnosis of appendicitis was made and the patient was operated on using the McBurney approach. Intraoperatively, an appendix measuring 8.5 cm x 5 cm with a point of increased volume was discovered. Appendectomy was performed. The postoperative course was simple and the patient was discharged at D3 postoperatively after resumption of transit and oral feeding.

Anatomopathological examination of the appendicular specimen (figure 1) showed a simple appendicular mucocoele without any degenerative focus (figure 2, 3). The colonoscopy performed at 3 months was normal. The patient was lost to follow-up after 12 months.

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Figure 1: Appearance of an appendicular mucocoele after formalin fixation. Note the increased volume of the distal half of the appendix.

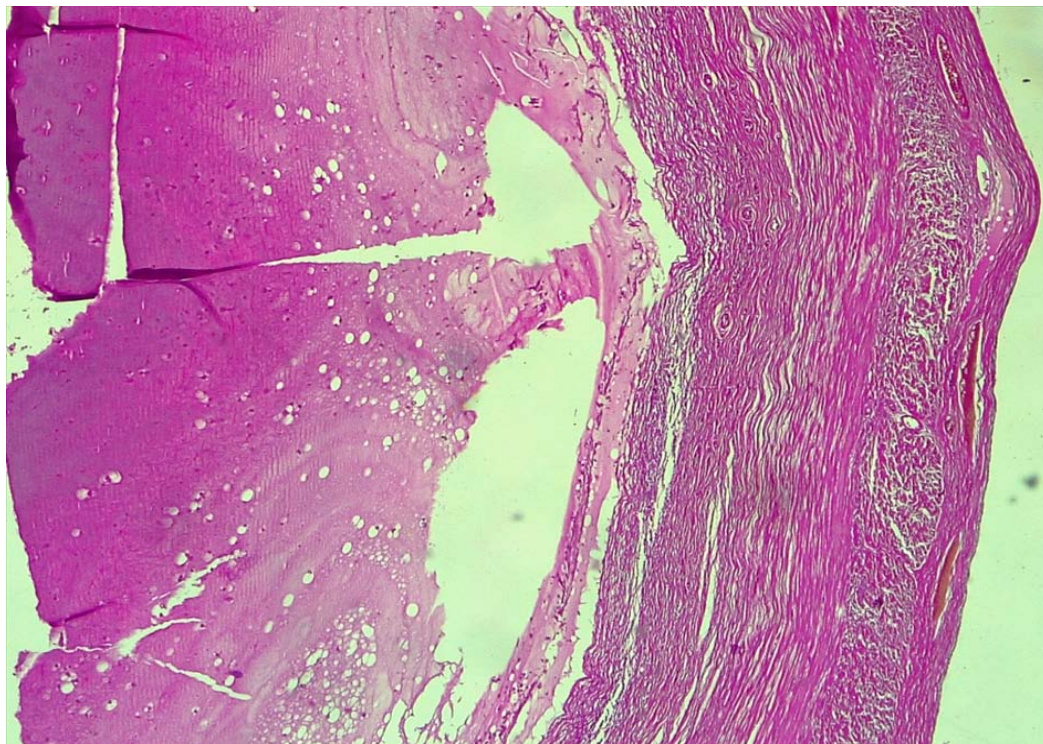


Figure 2: HE x 250: histological aspect of an appendicular mucocoele showing a dilated lumen with abundant mucoid substance infiltrating the smooth muscle layers and serosa.

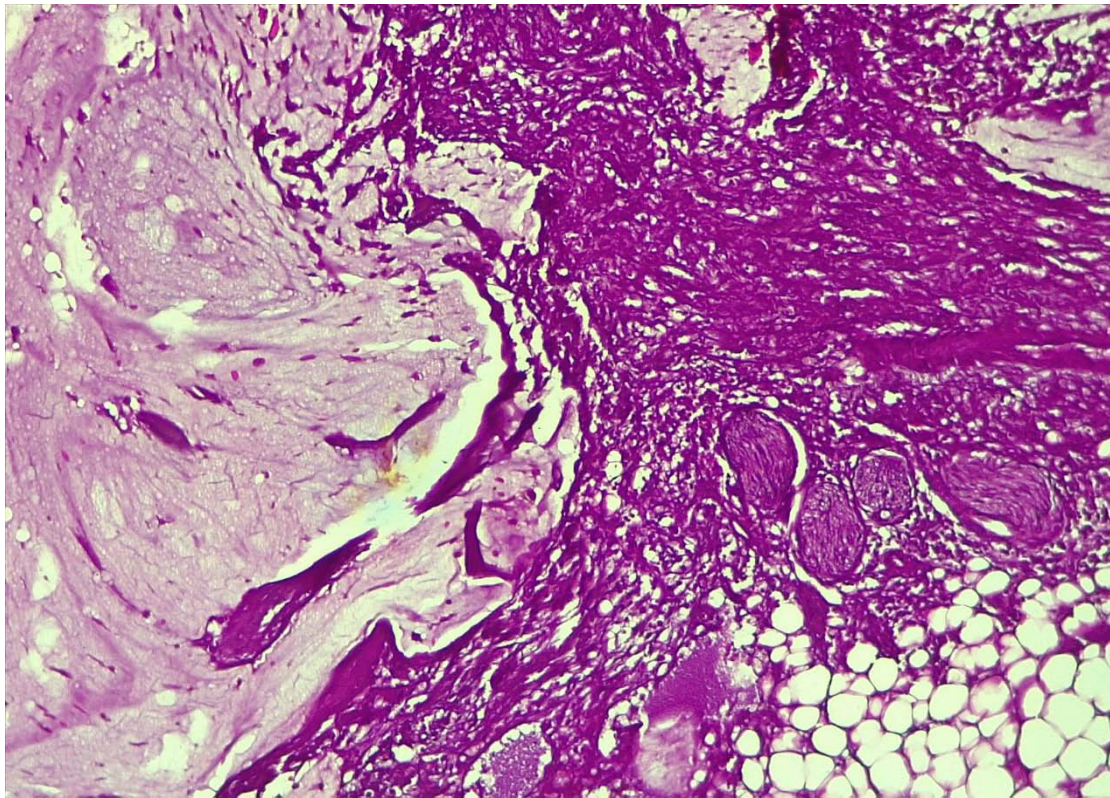


Figure 3: HE x 250: histological aspect of an appendicular mucocoele showing in the periphery of the wall, in the peritoneum, mucus patches without tumor masses and malignant tumor cells.

Observation 2

A 63-year-old patient with no previous history consulted for a painful but non febrile mass in the right iliac fossa that had appeared three months earlier. The mass had progressively increased in size until it reached the present dimensions. There was no transit disorder (diarrhea, constipation) and no rectal bleeding. The physical examination revealed a painful right iliac fossa with a regular surface, poorly limited, fixed to the deep and superficial plane. On rectal examination, the lower pole of the mass could not be felt. Clinically, the diagnosis of colonic tumor was evoked. Colonoscopy could not be performed and tumor markers (CEA, CA 19-9) were not detected. The sedimentation rate was accelerated with figures of 45 at the first hour and 85 at the second hour. The white blood cell count was 13500/mm³. The C-reactive protein was increased to 200 mg/l. Abdominal ultrasound revealed a heterogeneous mass in the right iliac fossa, suggesting an abscess. The patient was operated by median laparotomy. When the abdomen was opened, there was no abscess in the right iliac fossa, but a large appendix measuring 15 cm x 7 cm, with a pedicle base on the cecum. On palpation of the colonic frame there was no tumor, there was no adenopathy in the abdomen, no ascites or mucus. The diagnosis of appendicular mucocoele was evoked. An appendectomy with resection of the base of the cecum was performed. The postoperative course was simple and the patient was

discharged at 5 days postoperatively after resumption of transit and oral feeding.

The anatomical-pathological examination showed a simple appendicular mucocoele without any degenerative focus. Colonoscopy performed at 3 months postoperatively was normal. The patient was lost to follow-up after 6 months.

Observation 3

A 38-year-old G3P3 patient with no particular medical or surgical history consulted the surgical emergency room for right iliac fossa pain evolving for three days. The date of the last ones was known by the patient, there was no menstrual cycle disorder. The patient also complained of nausea and vomiting. The physical examination revealed pain and tenderness in the right iliac fossa, the temperature was 38.9°C. The rectal examination revealed pain at the top and right fingertips. The vaginal touch was normal. The sedimentation rate was 45 at the first hour and 70 at the second hour. The white blood cell count was 14500/mm³. The C-reactive protein was increased to 78mg/l. Abdominopelvic ultrasound showed a hypoechoic structure with a thickened wall suggesting a periappendicular abscess. The right uterine adnexa and uterus were normal. The patient was operated by laparotomy (Mc Burney). During the operation, an appendix measuring 8 cm long was discovered, enlarged in its proximal part and indurated in its median

part. The right uterine appendages were unremarkable. An appendectomy was performed (Figure 4). The postoperative course was simple and the patient was discharged at 2 days postoperatively.

Anatomopathological examination of the appendectomy specimen showed a mucinous cystadenocarcinoma without invasion of the appendicular base. There was no metastatic embolism in the vessels and no perineural envelopment. Pelvic

ultrasound performed at three months post-op showed normal right and left uterine appendages. The colonoscopy performed at the same date was normal. The patient refused the proposed reintervention to perform a hemicolectomy. Tumor markers (CEA, CA 19-9 ca 125) were normal at 12 and 24 months. The last pelvic ultrasound done after 36 months was normal. She was subsequently lost to follow-up.



Figure 4: Appendectomy specimen for appendiceal mucocoele: Note the swollen appearance of the appendix especially marked in its proximal half.

Observation 4

A 54-year-old patient was admitted to the emergency room with sudden onset right iliac fossa pain that had been evolving for 4 days with nausea but no transit disorders. On clinical examination, the temperature was 38.5°C, there was pain and tenderness in the right iliac fossa. Abdominal ultrasound was not performed. The sedimentation rate was accelerated with figures of 30 at the first hour and 50 at the second hour. The white blood cell count was 10300/mm³. The C-reactive protein was increased to 21mg/l. The diagnosis of acute appendicitis was evoked and the patient was operated. At laparotomy through McBurney's approach, an appendix measuring 9 cm x 5 cm was discovered. The appendectomy was performed (figure 5). When the appendix was cut, mucus was seen to be flowing. This

fact necessitated the resection of the appendicular stump taking away the base of the appendix on the cecum. The postoperative course was simple and the patient was discharged on day 3.

The anatomical-pathological examination of the appendicular specimen showed a simple appendicular mucocoele without any degenerative focus. Colonoscopy was not performed. The patient was lost to follow-up after the first postoperative consultation at one month postoperatively.

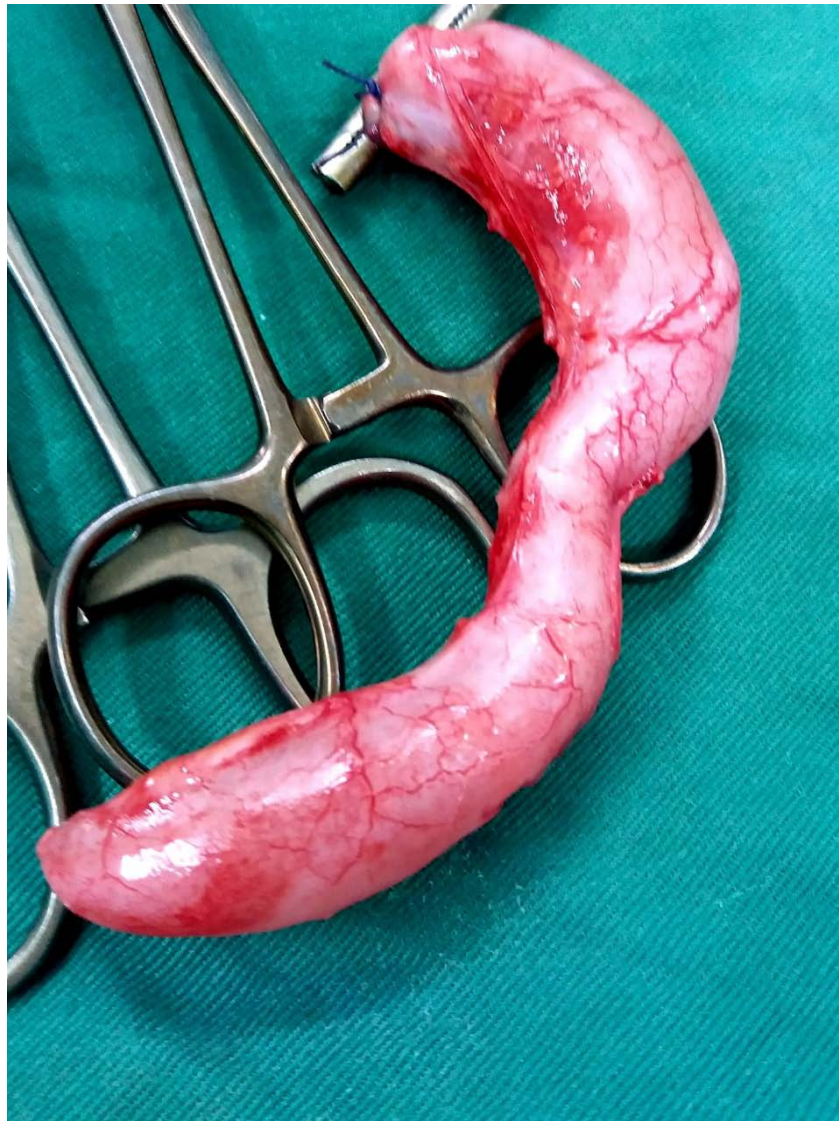


Figure 5: Appendectomy specimen. Note the uniformly dilated appearance of the appendix.

Observation 5

A 68-year-old patient with known hypertension and G6P6 menopausal disease consulted for right iliac fossa pain that had been present for 3 months. The pain was dull without radiations, there was no weight loss. Clinical examination revealed a firm right iliac fossa mass adherent to the deep plane. Pelvic touch was normal. Ultrasound examination showed a hypoechoic mass of digestive appearance, heterogeneous, independent of the right psoas muscle and the bladder, measuring 169 mm long and 80 mm in diameter, pushing the right adnexa posteriorly. There was no adenopathy and no ascites. Colonoscopy showed a decrease of the colonic lumen, the poor colonic preparation did not allow to affirm the presence of an intra luminal lesion (tumor). Tumor markers were normal. The rest of the biological work-up was also normal (blood glucose, blood count, prothrombin rate). An indication for laparotomy was given for a tumor of the cecum. During the operation, there was no colonic

tumor and a large appendicular tumor was discovered. The mass was oblong, elongated and well limited, 17.5 cm in length and 7 cm in diameter, with a healthy base, but with an epiploic call and small intestines. There was no adenopathy, ascites or mucoid effusion in the abdominal cavity. The uterus and adnexa were normal. An appendectomy was performed. The postoperative course was simple and the patient was discharged at 8 days postoperatively. Anatomopathological analysis of the surgical specimen confirmed the diagnosis of appendicular mucocoele without malignant cells, of mucinous cystadenoma type. Ultrasound of the abdomen done at 6 months was normal as was colonoscopy done at 12 months. Tumor markers could not be performed. The patient was lost to follow-up after 27 months.

Observation 6

A 55-year-old chronically constipated patient was accompanied by his parents in January 2019 for

late postprandial vomiting associated with altered general condition evolving around 05 months. He had no abdominal pain, cessation of matter and gas, hematemesis, melena, and rectorrhagia. The patient had anorexia, reported asthenia and weight loss with an estimated weight loss of 2% of the body weight (Formal weight: 87 kg Current weight 83kg). The conjunctiva were slightly colored, the blood pressure was 130/90 mmHg, the pulse was 80 beats/min and the respiratory rate was 20cycles/min. There was an abdominal tumefaction from the right para-umbilical region to the right flank. The mass was round, painless, firm, mobile and dull on percussion. On digital rectal examination the prostate appeared to be enlarged, and the fingernail brought back soft stools. The diagnosis of cystic tumor of the mesentery was evoked. Due to post prandial vomiting, an oesogastroduodenal fibroscopy was performed and revealed an erythematous fundic gastropathy. Abdominopelvic CT scan showed a homogeneous liquid mass in favor of a mesenteric cyst corresponding to a giant cystic lymphangioma (Figures 6 and 7). Biologically, the hemoglobin level was 8.7

g/dL, the white blood cell count was 4600 and the platelets were 189000. Blood glucose was normal, as well as creatinine and prothrombin level (92%). Regarding tumor markers, CEA was 8ng/ and CA19-9 was 53 IU/ml. The patient was transfused and then operated on. Intraoperatively it was a large, firm, pearly white mass measuring 14 cm x 7 cm, located at the ileocaecal junction at the junction of the three caecal bands (Figure 8). The appendix was not seen. There was no adenopathy, no ascites. Palpation of the colonic frame did not reveal any tumor. We performed the removal of the mass (figure 9). The postoperative course was simple and the patient was discharged at D7 postoperatively. On anatomopathological examination it was an appendicular mucocoele.

At 6 months post-op, the patient underwent a colonoscopy which was normal as were the tumor marker assays (CEA was 4.5ng/ml and CA19-9 was 17 IU/ml). Contacted by telephone in July 2021, the patient was doing well, and claimed to have regained his appetite and weight.

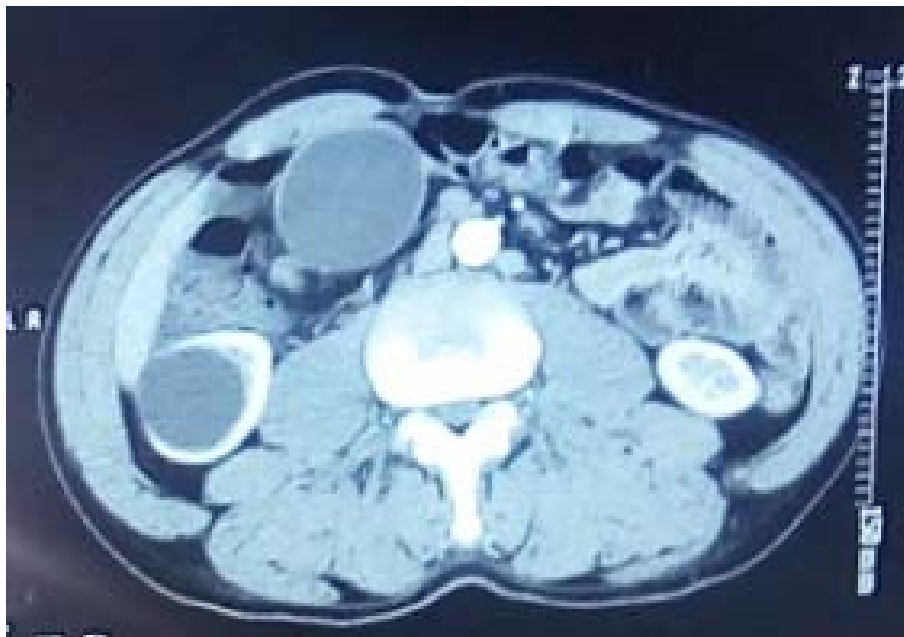


Figure 6: CT scan section showing the cystic mass with wall enhancement (thin arrow). Note the cyst on the lower pole of the right kidney (thick arrow).

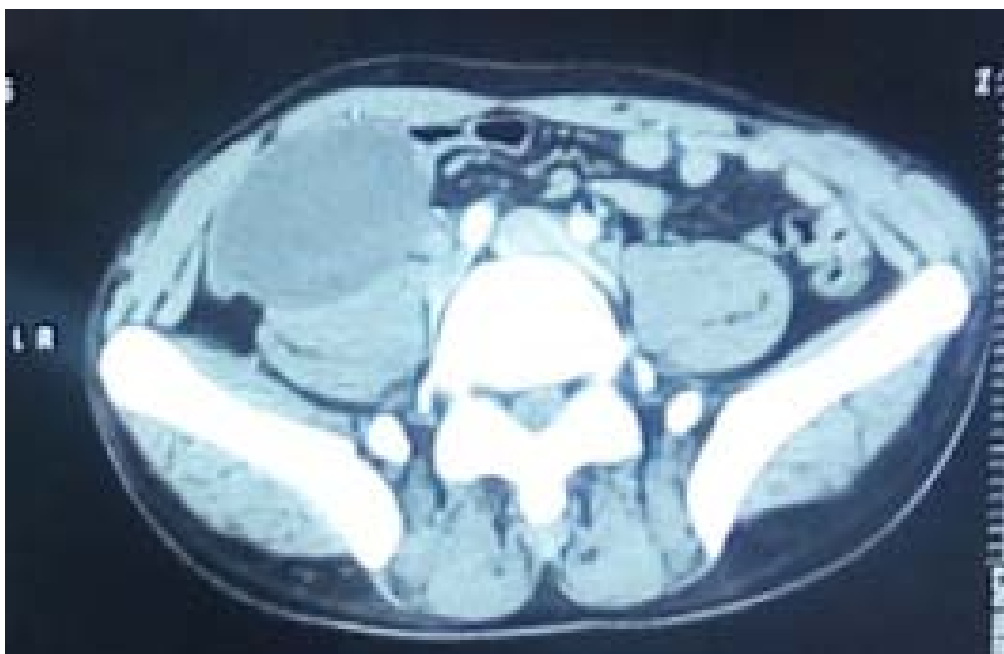


Figure 7: Scannographic section showing the cystic mass coming into contact with the psoas in the right iliac fossa.



Figure 8: Intraoperative findings: elongated pearly white mass located at the ileocaecal junction (ileum: left clamp and cecum: right clamp).



Figure 9: Appearance of an appendiceal mucocoele after appendectomy. Note the pearly white oblong appendicular mass.

III. DISCUSSION

Appendicular mucocoele is a rare condition, observed in 0.2% to 0.7% of appendectomy specimens according to the literature [6-8]. The first Ivorian case seems to have been reported by Kouadio L et al in 2003 [9].

The treatment of appendiceal mucocoele is surgical, balancing appendectomy in healthy tissue and right hemicolectomy. The surgical procedure can be conducted by laparotomy or laparoscopic surgery [10-12]. To prevent any risk of rupture of the appendicular mass, some authors perform the appendicular resection with automatic suture forceps [12-14]. Appendectomy is sufficient for a simple appendicular mucocoele or a mucinous cystadenoma. When in doubt intraoperatively, some authors excise the caecal insertion of the appendicular base [12, 15], others perform a resection of the cecum, and still others perform a right hemicolectomy [16, 17].

In the present study, simple appendectomy was performed in five patients and excision of the caecal insertion of the appendicular base in one patient (observation 2). Intraoperatively, exploration of the colonic framework is important if the operation is

performed by a large laparotomy or by laparoscopic surgery, otherwise a colonoscopy should be performed in the follow-up of the patient to look for a synchronous or metachronous colonic tumor [6,15]. In women it is essential to explore the adnexa [7,18].

It is important to avoid intraoperative rupture and to look for this rupture on anatomopathological examination of the specimen. This rupture has a poor prognosis because it exposes the risk of peritoneal pseudomyxoma [15,19]. This was not found in our observations.

Anatomopathological examination is essential in the subsequent management, especially if a simple appendectomy has been performed. If there is no invasion of the appendicular base, no metastatic embolism in the vessels and no perineural envelopment, a simple appendectomy can be performed, otherwise a right hemicolectomy with lymph node curage should be performed [1, 15, 20].

Long-term postoperative follow-up is crucial because cancers have been discovered after a follow-up of 12 to 33 months and a peritoneal pseudomyxoma occurred after a follow-up of more than 60 months [7,15].

In our study, no tumor recurrence or metastasis was observed after one year of follow-up. Only one patient is currently followed up, the others have been lost to follow-up.

IV. CONCLUSION

Appendicular mucocoele is a rare condition. The treatment of appendicular mucocoele is surgical for two reasons; its potential malignancy on the one hand and on the other hand the risk of a peritoneal pseudomyxoma or gelatinous disease of the peritoneum in case of perforation. The evolution and prognosis are conditioned by the histological type, the surgical procedure and the peritoneal. Long-term follow-up after surgery is important because of the risk of possible recurrence.

Conflict of Interest: All the authors do not have any possible conflicts of interest.

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Determinant Factors and Possible Causes Associated with the Success or Failure of Loss of Excess Weight (%Pep) in Patients Submitted to Bariatric Surgery

By Mônica Fernandez, Elias Jirjoss Ilias, Wilson Rodrigues de Freitas Junior, Mônica de Aguiar Medeiros, Ana Carolina Marchiori Souza, Nickolas Nogueira Nunes, Norma Oliveira da Silva & Patrícia Colombo-Souza

Abstract- Objective: To know the reasons for the success or failure of excess weight loss in patients undergoing bariatric surgery, and its association with surgical time, quality of food consumption and physical activity.

Method: Female patients were evaluated, with surgical time of 2 -7 years, older than 18 years, without comorbidities seen at a Public Hospital in São Paulo. As a success criterion for surgery, the value of the percentage of excess weight loss (% PEP) greater than or equal to 50. For possible causes of failure, an analysis of the frequency of qualitative consumption of food groups was carried out according to the Fisher test. and for the analysis of the practice of physical activity, the Chi-square test was used.

Keywords: bariatric surgery, weight loss, morbid obesity, physical activity.

GJMR-I Classification: NLMC Code: WJ768



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Result: 45 patients were divided into two groups (G1 > PEP n.31) and (G2 < PEP n.14). There was no statistical difference regarding age and surgical time. As for the surgical time and PEP > 50 aged 2 -3 years (66%), 4 years (81%) and 5 - 6 years (50%). In the food groups, G2 was found to be significant in the butter, white bread, soft drink and coffee with sugar. There was no difference in activity, however, in G1 who did not practice activity, 46% had 4 years of surgery and in G2 who practiced activity, 37.5% were 5 years old, which represents a relationship between surgical time and quality in the practice of the activity.

Conclusion: In order to guarantee long-term postoperative success, the monitoring of a multidisciplinary team is essential.

Keywords: bariatric surgery, weight loss, morbid obesity, physical activity.

1. INTRODUCTION

The World Health Organization (WHO) considers obesity a global epidemic conditioned by the dietary profile and the practice of physical activity¹. The etiology of obesity is complex and multifactorial, resulting from the interaction of genes, the modern environment is a powerful stimulus for the development of obesity, lifestyles and emotional factors^{1,2}. Risk factors for the development of obesity can be divided into non-

modifiable and modifiable, among the latter are decreased physical activity and increased caloric intake that promote increased weight and fat concentration in the body.² Few clinical treatments for obesity are effective in losing and maintaining ideal weight.² According to studies carried out by the Brazilian Society of Bariatric and Metabolic Surgery (SBCBM), the indication of bariatric surgery is currently growing, being considered an effective method in the treatment of severe and its comorbidities and also in long-term weight control. In 1999, bariatric surgery was included among the procedures covered by the Unified Health System (SUS).³ Gastric Bypass is the most practiced bariatric technique in Brazil, corresponding to 75% of surgeries performed, due to its safety and, mainly, its effectiveness.⁴ The patient undergoing surgery loses 70% to 80% of the initial excess weight.⁴ In this mixed procedure, part of the stomach is stapled, which reduces the space for food, and a deviation of the initial bowel, which promotes the increase of hormones that give satiety and reduce hunger.⁴ The final proposal would be that the patient develops control in food consumption in quality and quantity in the long term, but the presence of inappropriate lifestyle behaviors such as little or no practice of physical activity and inadequate eating habits can reduce the effectiveness of the surgical procedure and represent the recovery of excess weight lost.^{5,6} Literature shows that 15% of patients may have regained weight, returning to the obesity range or even severe obesity between five and ten years after bariatric surgery, and in some cases, increased consumption of food and liquid calories was observed. The mechanisms possibly involved in this process need to be better analyzed.^{4,7,8,9,10} The multidisciplinary follow-up is essential for the maintenance of success in bariatric surgery by monitoring the behavior of physical activity and adequate food consumption.

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II. OBJECTIVES

To know the reasons for the success or failure of overweight loss (%PEP) in patients undergoing bariatric surgery, and its relationship (or association) with the elapsed time of surgery, quality of food consumption and physical activity.

III. METHOD

This research was authorized by the Research Ethics Committee (CEP) of the Santa Casa de Misericórdia Brotherhood of São Paulo under n. of CAAE 23694219.4.0000.5479. Patients were considered to be able to participate in the research after reading and signing the free and informed consent form. This is an observational cross-sectional study. Bariatric patients with surgical time between 2 and 7 years, older than 18 years, without comorbidities treated at the Bariatric Nutrition Specialty Outpatient Clinic of the Hospital da Irmandade da Santa Casa de Misericórdia of São Paulo (ISCMSP) were evaluated. As exclusion criteria: Pregnant women, nursing mothers, drug addicts, alcoholics, smokers, cancer patients and those using drugs for weight loss. To define the percentage difference in weight lost in relation to excess weight (%PEP), the weight recorded on the day of surgery was used as a basis, the ideal weight for the Body Mass Index (BMI) value as proposed by the FAO and for patients aged 60 years or more, the BMI was used according to the age and minimum weight achieved in the post-surgery period, as described by Novais¹¹. The loss of excess weight is considered one of the main

parameters to define the success of the surgical procedure, and researchers agree that the criterion for this assessment is the %WBS of at least 50%. Patients were divided into two groups (group I: successful PEP>50% and group II: unsuccessful PEP<50%). To verify the possible causes of overweight recovery in this group, the food frequency questionnaire (FFQ) adapted from SICHIERI¹² and EVERHART¹³ was applied with the classification of higher calorie food groups that could contribute to the recovery of excess weight if consumed with higher frequency and for behavior analysis for the practice of physical activity, a questionnaire was applied according to VIGITEL¹⁴ 2018 (Surveillance of Risk Factors and Protection for Chronic Diseases by Telephone Survey). An analysis of the frequency of consumption of selected food groups was performed according to the Fisher test for a significance level of $p < 0.05$. (Table 1), to analyze the practice of physical activity, the Chi-square test was used. (Table 2)

IV. RESULTS

Were evaluated forty-five female patients with surgical times ranging from 2 to 7 years were evaluated. Patients were divided into two groups: those considered successful PEP>50%, called G1 (n=31), and those considered unsuccessful with PEP<50%, called G2 (n=14). There was no statistical difference ($p=0.815$) between the mean ages of G1 (48.3 years \pm 1.19) and G2 (48.5 years \pm 1.2). In this study group, patients with 2 and 3 years of surgery had 66% success, with 4 years 81% success, with 5 and 6 years 50% success and with 7 years 100% successful.

Table 1: Frequency of use and consumption of food groups, of patients of patients seen according to success and failure of bariatric surgery, (PEP >50% and PEP <50%) ISCMSP, 2020.

Food Groups	Success				Failure				Total		Value offered
	Rarely		Frequent		Rarely		Frequent		N	% Rarely	
	N	%	N	%	N	%	N	%			
Butter	15	48.4	16	51.6	1	7.1	13	92.9	16	35.5	0.0007*
Embedded	18	58.1	13	41.9	10	71.4	4	28.6	28	63.0	0.2886
White breads	9	29.0	22	71.0	2	14.3	12	85.7	11	24.4	0.0027*
Candy	25	80.6	6	19.4	11	78.6	3	21.4	36	80.0	0.3131
Chocolates	26	83.9	5	16.1	13	92.8	1	7.2	39	88.4	0.6930
Farinaceous sweets	11	35.5	20	64.5	13	92.8	1	7.2	24	53.3	0.0042*
Soft drinks	14	45.2	17	54.8	4	28.6	10	71.4	18	40.0	0.0297*
Coffee with sugar	13	41.9	18	58.1	2	14.3	12	85.7	15	33.3	0.0027*
Artificial juice	15	48.4	16	51.6	5	35.7	9	64.3	20	44.4	0.0540
Natural juice	11	35.5	20	64.5	6	42.8	8	57.2	17	37.8	0.0988

Reference: Bariatric Nutrition Specialty Clinic, Hospital da Irmandade da Santa Casa de Misericórdia of São Paulo (ISCMSP)

Table 2: Physical Activity Practice presented by patients seen according to success and failure of bariatric surgery (PEP >50% and PEP <50%). ISCMSP, 2020.

Physical activity practice	Success		Failure		Total	
	N	%	N	%	N	%
Sim	18	58.1	8	57.1	26	57.8
Não	13	41.9	6	42.9	19	42.2
Total	31	68.9	14	31.1	45	100.0

$$\chi^2 = 0.003$$

$$p = 0.7887 \text{ (N.S.)}$$

Reference: Bariatric Nutrition Specialty Clinic, Hospital da Irmandade da Santa Casa de Misericórdia of São Paulo (ISCMSP)

V. DISCUSSION

When assessing the age of the patients in this study, a mean age was found to be 48.3 years for the successful group (PEP >50%) and 48.5 years for the failure group (PEP <50%). It was observed that there was no statistically significant difference in age for the success or failure of overweight loss (PEP >50% and PEP <50%) in this study group.

It was also observed that there was no statistically significant difference regarding the surgical time for the success or failure of excess weight loss (PEP >50% and PEP <50%). According to ABESO (2009/2010)¹⁵, it is necessary to maintain weight loss for 5 years, a period in which failure to control weight maintenance can occur. As for the analysis of qualitative food consumption of patients with failure for PEP <50%, there was statistical significance for the frequent consumption of foods from the group of butter, white bread, soda and coffee with sugar. Patients with success for PEP >50%, there was a statistical significance for the frequent consumption of foods from the farinaceous sweet group (Table 1). According to a study by Soares (2017), there is a tendency in this group of patients to return to inadequate eating habits after 2 years of the procedure, with increased consumption of foods rich in carbohydrates and lipids.^{16,17,18} For the other food groups, consumption there was no statistically significant difference, that is, consumption is the same in both groups. There was no significant difference between the two groups according to PEP >50% and PEP <50% in relation to the analysis of physical activity practice (Table 2). It is important to mention that of the patients with a success rate for surgery (PEP >50%) and who did not practice physical activity, 46% had 4 years of surgery. Scientific studies report that after 5 to 10 years the risks of weight regain are greater.¹⁹ Another analysis to be pointed out is that for the 57.1% of patients with an unsuccessful rate for surgery (PEP <50%) and who practiced physical activity, 37.5% had 5 years of surgery, which may represent a relationship between surgical time and the practice of physical activity and the quality of this activity. According to Alexandrino (2019) of the patients who underwent surgical procedures for weight loss with an average follow-up of 7 years, 74% who were successful in the treatment had regular physical exercise practice²⁰.

VI. CONCLUSION

Factors such as age and surgical time were not determinant for success or failure parameters. The consumption of high-calorie food groups more frequently can lead to failure to lose excess weight and promote short-term recovery. The practice of physical activity and surgical time may be related to the successful loss of excess weight. To guarantee an effective treatment, capable of ensuring postoperative success, monitoring by a professional nutritionist, associated with a multidisciplinary team, is essential to promote changes in eating habits due to the new physiological condition. Behavioral changes with healthy eating and the practice of daily physical activity are essential for maintaining the loss of excess weight in post-bariatric patients

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Our Viewpoint about Therapeutic Tactics in Patients with Chronic Venous Insufficiency

By Ravshan Djalilovich Sunnatov, Sirojbek Zafarovich Tajiev
& Boboyor Keldiyorovich Keldiyorov

Abstract- The research is based on a comparative analysis of the results after treatment of patients with chronic venous insufficiency (CVI) occurred in the lower extremities, patients were admitted to the hospital of the Tashkent Medical Academy and Akfa Medline hospital during the period 2016-2021. Patients were divided into 2 groups, which includes patients who treated with new treatment method and second group were control for comparison efficiency of the treatment. Conclusions were drawn about the shortcomings of the tactics of managing patients. During the treatment of patients of the main group, android programs were used to measure the area of trophic ulcers, an improved method of sanitation of trophic ulcers and a therapeutic algorithm for managing patients depending on the phase of the process, which led to an increase in the rate of ulcer granulation, and a reduction in the length of stay of patients in the hospital.

Keywords: varicose disease of the lower extremities, endovenous laser coagulation, radiofrequency ablation, sclerotherapy, vacuum therapy, trophic ulcer.

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I. INTRODUCTION

Chronic venous insufficiency (CVI) of the lower extremities due to varicose or post-thrombophlebitic disease is one of the most common vascular pathologies in the world [1, 3].

The prevalence of CVI among women is several times higher than among men. According to the epidemiological data, various forms of this disease occur in 26%-38% of women and 10-20% of men of working age [1, 9, 13].

Trophic ulcers are the most common complication of chronic venous insufficiency; it remains an urgent problem in modern medicine [2, 4, 12]. In 15% there are trophic changes in the skin of the lower extremities, 50% of which are complicated by the formation of leg ulcers. Patients with long-term non-healing purulent wounds often stop working early and become disabled [5, 8].

Only a complex effect allows to achieve healing of a peptic ulcer with a long-term remission of the disease. All this indicates the need to search for new and improve existing therapeutic measures, modern surgical techniques and methods of conservative therapy in this area of surgery [7, 10].

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Traditional open intervention or endovascular technologies are usually considered as the method of choice for surgical treatment. According to research data, the use of radiofrequency ablation (RFA), endovenous laser coagulation (EVLC) and echosclerotherapy is preferable. foam-form, the results of which are comparable to those of traditional surgical methods and which allow outpatient treatment, with the patient's ability to work and a satisfactory cosmetic effect [11, 13].

One of the new methods of treatment of wound defects, including in patients with trophic ulcers of venous origin, is vacuum therapy. Vacuum therapy (Vacuum-assisted closure, VAC) is one of the therapies used to improve wound healing [3]. The use of vacuum therapy in the complex treatment of trophic ulcers of venous etiology improves the results of treatment of patients, which is reflected in the acceleration of the course of the wound process, the ability to perform the plastic stage at an earlier date and in the reduction of inpatient treatment [9].

However, despite the large arsenal of surgical interventions, the results of treatment of this category of patients remain insufficiently satisfactory, there are no data on effective methods of local treatment of trophic ulcers and a unified algorithm for managing patients.

In connection with the above, we undertook a study aimed at improving the treatment of patients with chronic venous insufficiency complicated by trophic ulcers.

Purpose of the study. Improving the results of treatment of chronic venous insufficiency complicated by a trophic ulcer by substantiating the complex use of EVLT with vacuum therapy.

II. MATERIALS AND METHODS

The study is based on a comparative analysis of the results of treatment of patients with chronic venous insufficiency (CVI) of the lower extremities, who were hospitalized in the departments of vascular surgery and purulent surgery of the Tashkent Medical Academy and in the department of surgery of the private clinic AKFAMedline for the period 2016-2021 Depending on the methods of treatment of CVI of the lower extremities, the patients were divided into 2 groups: control and main. The control group consisted of 58 (47.5%) patients, among whom were patients in the C6 and C6 r

stages, who were treated in the period 2016-2018. In this group, patients underwent conservative and traditional methods of treatment. In parallel, drug treatment was prescribed, consisting of phlebotonics, NSAIDs, antihistamines and antibacterial drugs.

The main group consisted of 64 (52.5%) patients with CVI of the lower extremities, which also included patients in the C6 and C6 r stages, who were diagnosed and treated in the period from 2019 to 2021. The main group of patients underwent EVLC + vacuum + autodermoplasty.

The average age of the patients was 51.20.4 years, women prevailed in the gender ratio.

To assess the severity of the disease, we used a clinical scale for assessing the severity of venous diseases.

Examination of patients included diagnostic methods generally accepted for a surgical hospital; of the special research methods, color duplex scanning of the veins of the lower extremities was used, and, according to indications, X-ray contrast phlebography and bacteriological culture from the area of the trophic ulcer were performed. Given the age groups of patients, if necessary, the list of examinations could include echocardiography, examination of narrow specialists

with the appointment of appropriate treatment if comorbidities were detected.

We have developed the program "Program for assessing the area of the trophic ulcer" "Wound sizedetector.exe", which allows the non-contact method to determine the size of the trophic ulcer, observe their decrease in dynamics and conduct detailed monitoring with documentary evidence in the database. The interface of the program is convenient, and ease of use makes it possible to recommend it for use, starting with primary health care.

Local treatment of trophic ulcers in the main group consisted of treatment with 0.4% electrolytic aqueous solution (EAS) of sodium hypochlorite in the 1st phase and 0.2% EAS of sodium hypochlorite in the 2nd phase, followed by the use of vacuum therapy in the 1st phase.

III. RESULTS AND DISCUSSION

According to the results of the color duplex scanning, depending on the detected reflux, patients with vertical reflux prevailed, compared with a combination of vertical with horizontal and horizontal reflux, as can be seen from Table 1.

Table 1: Distribution of patients according to blood reflux on color duplex scanning of the veins of the lower extremities, n=122

Reflux	Main, n=64	Control, n=58	TOTAL
Vertical	44	40	84
Vertical+horizontal	17	16	33
Horizontal	3	2	5
TOTAL	64	58	122

For the purpose of additional research, all patients underwent bacteriological culture from a trophic ulcer, as a result of which a variety of gram-positive and gram-negative flora were sown, which gave reason to consider the trophic ulcer identical to the infected one in its microflora.

In the control group, we used local treatment (sanitation with 0.3% hydrogen peroxide, proteolytic enzymes (trypsin, chymotrypsin), hydrophilic ointments (levomekol, levosin, dioxysol). Surgical treatment was carried out depending on the type of reflux: in 40 cases (68, 9%) vertical reflux, 16 cases (27.5%) vertical + horizontal reflux and 2 cases (3.6%) horizontal refluxes, performed traditional types of surgical intervention: phlebectomy according to the Babcock technique (38 cases), phlebectomy according to the Babcock technique+ Linton (3 cases), phlebectomy according to the Babcock technique + Cocket (15 cases) and Endolinton (2 cases).

The assessment of the ongoing treatment was carried out at 1, 5, 10, 15, 20, 30 after its start. The evaluation criteria were the indicators of the VCSS scale. The pain syndrome did not disappear completely in any patient.

Against the background of the ongoing treatment, the duration of the inflammation phase decreased to 5.1%, the proliferation phase to 6.7% and the healing phase to 9.8%.

The entire course of treatment in the control group was 8-21 bed-days, and the epithelialization period was 7-18 days.

In the control group of patients after the treatment in 10 cases there was a relapse of the trophic ulcer, in the rest of the patients the trophic ulcer was completely cured.

The proposed method for the local treatment of trophic ulcers, treatment with 0.4% EAS sodium hypochlorite in the 1st phase and 0.2% EAS sodium hypochlorite in the 2nd phase, followed by the use of vacuum therapy in the 1st phase, made it possible to achieve the expected results. Assessment of the most common subjective symptom, pain, on a scale showed that from the beginning of treatment, when the initial level was 7.2, on the 15th day of treatment it decreased to 1.1. According to bacteriological culture, the initial level was 7.6, and on the 15th day after the application of local treatment it decreased to 1.0 (CFU/ml).

Taking into account the results of our studies, we proposed an algorithm for managing patients with trophic ulcers, depending on the phase of the process, which we used in the main group of patients.

Conservative therapy in the main group was the same as in the control group, it consisted primarily in compression, which is considered the basis for the treatment of CVI with trophic ulcers, elevated position of the limb, antibiotic therapy, the appointment of phlebtonics, improvement of microcirculatory disorders, as well as the treatment of comorbidities.

Local treatment was carried out according to the method developed by us.

Regardless of reflux, 44 (68.8%) patients with vertical reflux, 17 (26.6%) with vertical + horizontal reflux, and 3 (4.7%) with horizontal reflux underwent EVLC + vacuum therapy.

To assess the effectiveness of the treatment, we carried out a comparative assessment of the results obtained with the results of the control group according to the VCSS classification parameters, during which the following differences were identified:

1. Decrease in the area of the wound surface by 38.7% versus 18.2% in the control group.
2. Minor pains were noted in 73.6% of patients, the remaining 26.4% had no pain symptoms. While in the control group, the absence of pain symptoms was observed only in 10.7% of patients, and the remaining 89.3% of patients complained of moderate and mild pain.
3. In the main group, mild edema and hyperemia were observed in 69.4% of patients, and in 30.6% of cases, edema and hyperemia were absent, compared to the control group, in 85.3% of patients, edema was moderate and insignificant, in the remaining 14.7% of patients There was no edema or hyperemia.
4. Signs of granulation in the main group appeared on the 5th day from the onset of the disease, while in the control group it was on the 10th day.
5. Against the background of the ongoing treatment, it can be noted that the duration of the inflammation phase decreased to 3.1%, the proliferation phase to 3.6% and the healing phase to 6.2%.

IV. CONCLUSION

1. Treatment of patients with trophic ulcers against the background of chronic venous insufficiency should be complex and depend on the phase of the process: the most appropriate use of vacuum therapy in the 1st phase, after which we recommend using the method of sanitation of trophic ulcers developed by us in the 2nd phase.
2. The android program developed by us "Wound sizedetector.exe". Allows non-contact method to measure the area of trophic ulcers and monitor

during treatment with documentation of the data obtained.

3. The use of our treatment tactics made it possible to improve the results of treatment of patients with trophic ulcers, which resulted in a decrease and disappearance of pain, a decrease in the area of trophic ulcers, a reduction in the duration of the inflammation phase and, accordingly, a reduction in the length of stay of patients in the hospital.

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Prevalência De Sinais E Sintomas De Disbiose Intestinal E Sua Relação Com O Sucesso Ou Insucesso Na Perda Do Excesso De Peso (%Pep) Em Pacientes Bariátricos

By Mônica Fernandez, Elias Jirjoss Ilias, Wilson Rodrigues de Freitas Junior,
Mônica de Aguiar Medeiros, Klícy Macena da Silva, Jéssica Leite Filho
& Patrícia Colombo-Souza

Abstract- Objective: To investigate the signs and symptoms of intestinal dysbiosis and its relationship with weight loss (% WBS) and postoperative time in Bariatric patients.

Method: Cross-sectional observational study. Stories - patients with surgical time 2 to 7 years attended at the Nutrition outpatient clinic of a Public Hospital. To verify the possible presence of intestinal dysbiosis, the metabolic tracking questionnaire (QRM) and the Bristol Scale will be applied.

Result: 44 female patients without comorbidities were chosen. Group I (Success) with N.31 and Group II (Failure) with N.13. There was no statistical difference between the groups regarding the QRM and Bristol Scale in the pre- or postoperative period.

Discussion: No group II, the item of people with very poor health has a higher score than no group I. There is a difference in the result in group II regarding the change in consistency in the stools before surgery (28.6%) and postoperative period (42.8%).

GJMR-I Classification: DDC Code: 305.89636 LCC Code: DT571.O58



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Mônica Fernandez ^α, Elias Jirjoss Ilias ^σ, Wilson Rodrigues de Freitas Junior ^ρ, Mônica de Aguiar Medeiros ^ω, Klícyia Macena da Silva [¥], Jéssica Leite Filho [§] & Patrícia Colombo-Souza ^x

Resumo- Objetivo: Investigar os sinais e sintomas de disbiose intestinal e sua relação com a perda do excesso de peso (%PEP) e o tempo pós-operatório em pacientes Bariátricos.

Método: Estudo transversal observacional. Avaliou-se pacientes com tempo cirúrgico 2 a 7 anos atendidos no ambulatório de Nutrição de um Hospital Público. Para verificar a possível presença de disbiose intestinal será aplicado o questionário de rastreamento metabólico (QRM) e a Escala de Bristol.

Resultado: Foram avaliados 44 pacientes do gênero feminino, sem comorbidades. O grupo I (Sucesso) com N.31 e o grupo II (Insucesso) com N.13. Não houve diferença estatística entre os grupos em relação ao QRM e Escala de Bristol no pré ou pós-operatório. **DISCUSSÃO:** No grupo II o item de pessoas com saúde muito ruim apresenta um score maior que no grupo I. Destaca-se uma diferença de resultado no grupo II em relação a alteração de consistência nas fezes no pré cirúrgico (28,6%) e pós cirúrgico (42,8%). Segundo a literatura este fato pode representar um possível erro no consumo alimentar e falta de atividade física no grupo com insucesso, com alteração na consistência das fezes e reduzindo a perda do excesso de peso.

Conclusão: O tempo cirúrgico não foi determinante para a presença de disbiose intestinal nos grupos sucesso e insucesso. Segundo o QRM os pacientes do grupo II apresentaram o item de "saúde muito ruim" (pontuação >100). Este fato pode indicar que o insucesso na perda do excesso de peso foi associado ao score de QRM mais alto.

Abstract- Objective: To investigate the signs and symptoms of intestinal dysbiosis and its relationship with weight loss (% WBS) and postoperative time in Bariatric patients.

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Discussion: No group II, the item of people with very poor health has a higher score than no group I. There is a difference in the result in group II regarding the change in consistency in the stools before surgery (28.6%) and postoperative period (42.8%). According to the literature, this fact may represent a possible error in food consumption and lack of physical activity in the unsuccessful group, with changes in stool consistency and loss of weight loss.

Conclusion: The surgical time was not a determinant for the presence of intestinal dysbiosis in the success and failure groups. According to the QRM of patients in group II for the assessment of the item "very bad health" (score > 100). This fact may indicate that weight loss failure was associated with a higher QRM score.

1. INTRODUÇÃO

A etiologia da obesidade é marcada pela influência da vida moderna, como rotinas agitadas, porém, com pouca atividade física e a cultura de consumo principalmente para alimentos ultraprocessados, tornando a obesidade uma doença de difícil tratamento e controle devido à sua complexidade^{1,2}. Pessoas obesas costumam tentar diferentes métodos para reduzir o peso, dietas da moda, exercícios físicos extenuantes, medicamentos com e sem prescrição e intervenções com e sem indicações corretas, mas poucos tratamentos clínicos para a obesidade são efetivos na perda e manutenção do peso ideal.^{1,2} A Sociedade Brasileira de Cirurgia Bariátrica e Metabólica (SBCBM) descreve através de estudos que a indicação da cirurgia bariátrica vem crescendo atualmente, sendo considerada um método eficaz no tratamento da obesidade grave e no controle de peso a longo prazo. Em 1999, a cirurgia bariátrica foi incluída entre os procedimentos cobertos pelo Sistema Único de Saúde (SUS).^{3,4} O Bypass Gástrico é a técnica bariátrica mais praticada no Brasil, considerado um procedimento misto, que reduz o espaço para o alimento no estômago e promove um desvio do intestino inicial levando ao aumento da liberação de hormônios que promovem a saciedade e diminuem a

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fome.⁴ Essa somatória entre a menor ingestão de alimentos e aumento da saciedade é o que leva ao emagrecimento, porém a presença de comportamentos inadequados no estilo de vida como pouca ou nenhuma prática de atividade física e hábitos alimentares inadequados podem diminuir a eficácia do procedimento cirúrgico e representar a recuperação do excesso de peso perdido.⁵ Os mecanismos possivelmente envolvidos neste processo precisam ser melhor analisados, atualmente estudos referem que a alterações na microbiota intestinal podem estar envolvidos neste processo^{6,7,8}. A literatura científica refere que pacientes obesos apresentam uma diferença na microbiota intestinal em comparação com a população magra^{9,10}. A disbiose intestinal é uma perturbação na homeostase do microbioma gastrointestinal, ocorre a diminuição dos microorganismos benéficos, aumento dos nocivos e perda da diversidade do microbioma gastrointestinal, tratar-se de uma patologia de etiologia multifatorial, relacionada a fatores farmacológicos, estilo de vida e a alimentação^{11,12}. Apesar de vários estudos publicados nos últimos anos relacionando a microbiota intestinal com a fisiopatologia da obesidade e os efeitos a curto prazo da cirurgia bariátrica sobre essa microbiota, não sabemos ainda, em que medida as modificações promovidas pela cirurgia nesse campo podem influenciar no desenvolvimento da disbiose intestinal e afetar a perda do excesso de peso destes pacientes^{13,14}.

II. OBJETIVOS

Investigar sinais e sintomas de disbiose intestinal e sua relação com a perda do excesso de peso (%PEP) e o tempo pós operatório em pacientes Bariátricos em Hospital Público no Estado de São Paulo.

III. MÉTODO

Trata-se de um estudo transversal observacional que foi realizado com pacientes Bariátricos com tempo cirúrgico de 2 a 7 anos, maiores de 18 anos, sem comorbidades atendidos no ambulatório de especialidade de Nutrição Bariátrica do hospital da Irmandade da Santa Casa de Misericórdia de São Paulo (ISCMSP), no período entre novembro 2019 a fevereiro 2020. Esta pesquisa foi autorizada pelo Comitê de Ética em Pesquisa (CEP), da Irmandade Santa Casa de Misericórdia de São Paulo sob o n. de CAAE 23694519.8.0000.5479. Considerando-se aptos os pacientes a participar da pesquisa após a leitura e assinatura do termo de consentimento livre e esclarecido.

Como critério de exclusão: Gestantes, nutrízes, dependentes químicos, etilistas, tabagistas, em uso de medicamentos para perda de peso e que estavam

fazendo uso de probióticos ou prebióticos há menos de um mês. Para definir a diferença percentual do peso perdido em relação ao excesso de peso (%PEP), utilizou-se como base o peso registrado no dia da cirurgia, peso ideal para valor do Índice de Massa Corporal (IMC) conforme proposto pela FAO¹⁵ e para os pacientes com 60anos ou mais utilizou-se o IMC de acordo com a idade e peso mínimo alcançado no pós-cirúrgico, conforme descrito por Novais, 2010¹⁶. A perda do excesso de peso é considerada um dos principais parâmetros para definir o sucesso do procedimento cirúrgico, sendo consenso entre pesquisadores que o critério para esta avaliação é o %PEP de pelo menos 50%. Os pacientes do estudo foram alocados em dois grupos (grupo I: sucesso PEP>50% e grupo II: insucesso PEP<50%), realizado análise estatística através do teste Teste de Mann-Whitney.

Para a investigação dos sinais e sintomas de disbiose intestinal foi aplicado o Questionário de Rastreamento Metabólico (QRM) do Centro Brasileiro de Nutrição Funcional¹⁷, composto por questões subjetivas, coletando informações a respeito do organismo do paciente, relativas aos últimos 30 dias. O QRM é um instrumento utilizado para apurar diversos sinais e sintomas, onde há uma pontuação que o próprio paciente avaliará. A somatória desta pontuação resultará como indicio para o rastreamento de possíveis deficiências nutricionais, hipersensibilidades, intolerâncias alimentares ou outras causas, sendo voltada também, a disbiose intestinal¹⁶. Para análise dos sinais e sintomas específicos para disbiose intestinal serão destacados para seção específica de sintomas gastrointestinais (náuseas, vômito, diarreia, constipação, abdômen distendido, gases intestinais, azia e dor estomacal). As informações coletadas por meio do questionário são interpretadas por uma escala de pontuação de zero a quatro, na qual, zero nunca ou quase nunca teve o sintoma, um ocasionalmente teve, efeito não foi severo, dois ocasionalmente teve, efeito foi severo, três frequentemente teve, efeito não foi severo e a pontuação quatro frequentemente teve, efeito foi severo. Na pontuação final do QRM¹⁷ apresenta-se a discriminação da possível presença de hipersensibilidade e estado de saúde, sendo: <20 pontos: Pessoas mais saudáveis, com menor chance de terem hipersensibilidade, >20 pontos: Indicativo de existência de hipersensibilidades, >40 pontos: Absoluta certeza de existência de hipersensibilidade, > 100 pontos: Pessoas com saúde muito ruim – alta dificuldades para executar tarefas diárias, pode estar associada à presença de outras doenças crônicas e degenerativas.

Para análise do QRM¹⁷ utilizou o teste Exato de Fisher. Para avaliar a consistência das fezes e suas alterações no pré e pós operatório aplicou-se a escala de Bristol¹⁸, escala composta por imagens que representam sete tipos imagem de fezes, por sua forma

e consistência. Para análise da escala de Bristol utilizou-se o teste Exato de Fischer e Teste do Qui-quadrado.

IV. RESULTADOS

Foram avaliados 44 pacientes do gênero feminino com tempos cirúrgicos entre 2 e 7 anos. O grupo I (Sucesso) com 31 componentes e o grupo II

(Insucesso) com 13 componentes. Neste grupo de estudo, pacientes com 2 e 3 anos de cirurgia apresentaram 66% de sucesso, com 4 anos 81% de sucesso, com 5 e 6 anos 50% de sucesso e com 7 anos 100% com sucesso.

A tabela 1 apresenta o resultado obtido de QRM17 para os pacientes do estudo segundo sucesso ou insucesso na perda do excesso de peso.

Tabela 1: QRM¹⁷ obtido pelos pacientes do estudo segundo sucesso e insucesso da cirurgia. (PEP >50% e PEP <50%)

QRM	Sucesso		Insucesso		Total	
	N	%	N	%	N	%
Indicativo de hipersensibilidade	11	35.4	4	30.8	15	34.1
Certeza de hipersensibilidade	19	61.4	5	38.4	24	54.5
Saúde muito ruim	1	3.2	4	30.8	5	11.4
Total	31	70.4	13	29.6	44	100.0

Fonte: Ambulatório de Especialidade de Nutrição Bariátrica do hospital da Irmandade da Santa Casa de Misericórdia de São Paulo (ISC MSP)

A tabela 2 apresenta o resultado da escala de Bristol¹⁸ obtida segundo a percepção do paciente no pré cirúrgico.

Tabela 2: Escala de Bristol¹⁸ obtida pelos pacientes do estudo ANTES do procedimento cirúrgico, segundo sucesso e insucesso da cirurgia. (PEP >50% e PEP <50%)

Escala Bristol ANTES	Sucesso		Insucesso		Total	
	N	%	N	%	N	%
Normal	16	51.6	1	7.1	26	57.8
Alterada	15	48.4	4	28.6	19	42.2
Total	31	68.9	1	31.1	45	100.0

Fonte: Ambulatório de Especialidade de Nutrição Bariátrica do hospital da Irmandade da Santa Casa de Misericórdia de São Paulo (ISC MSP)

A tabela 3 apresenta o resultado da escala de Bristol¹⁸ obtida segundo a percepção do paciente no pós cirúrgico.

Tabela 3: Escala de Bristol¹⁸ obtida pelos pacientes do estudo APÓS do procedimento cirúrgico, segundo sucesso e insucesso da cirurgia. (PEP >50% e PEP <50%)

Escala Bristol APÓS	Sucesso		Insucesso		Total	
	N	%	N	%	N	%
Normal	17	54.8	8	57.2	25	55.6
Alterada	14	45.2	6	42.8	20	44.4
Total	31	68.9	1	31.1	45	100.0

Fonte: Ambulatório de Especialidade de Nutrição Bariátrica do hospital da Irmandade da Santa Casa de Misericórdia de São Paulo (ISC MSP)

V. DISCUSSÃO

Observou-se que também não houve diferença estatística significativa quanto ao tempo cirúrgico para o sucesso ou insucesso da perda do excesso de peso. Segundo a ABESO (2009/2010)¹³, faz-se necessária a manutenção da perda de peso por 5 anos, período que pode ocorrer falha na manutenção do peso.

Quanto ao resultado da QRM não houve diferença significativa nos dois grupos (sucesso e insucesso) (Tabela1). Tanto no grupo I quanto no grupo II o valor de maior porcentagem observado foi no item de absoluta certeza de hipersensibilidade. Destaca-se, porém, que no grupo II (insucesso) o item de pessoas com saúde muito ruim apresenta porcentagem maior que no grupo I (sucesso). Zimmermann¹⁹ et. al, 2019

realizou estudo utilizando QRM em mulheres entre 18 e 60anos que participaram de orientações para modificação do consumo alimentar durante 10 semanas, em conclusão houve melhora dos sinais e sintomas para disbiose intestinal segundo resultado do QRM inicial e final do estudo. Este estudo complementa o fato que o Bypass Gástrico pode promover alterações na microbiota intestinal, porém, mudanças no consumo alimentar são necessárias para a promoção da melhora na qualidade de vida no pós operatório, redução do risco no desenvolvimento da disbiose intestinal e a manutenção da perda do excesso peso.

Quanto ao resultado da escala de Bristol¹⁸ não houve diferença significativa tanto no pré (Tabela 2) ou no pós-cirúrgico (Tabela 3) nos grupos. Destaca-se, porém, uma diferença de resultado no grupo II (insucesso) em relação a presença de alteração de consistência nas fezes no pré cirúrgico (28,6%) e pós cirúrgico (42,8%). Godoy et.al. 2011 realizou estudo utilizando Escala de Bristol e observou relação direta entre a prevalência de constipação intestinal e o valor de IMC, quanto maior valor de IMC maior o grau de constipação e alteração de consistência nas fezes. Este fato pode representar um possível erro no consumo alimentar e falta de atividade física neste grupo de pacientes com insucesso, promovendo alteração na consistência das fezes e reduzindo a perda do excesso de peso.

VI. CONCLUSÃO

O tempo cirúrgico não foi determinante para a presença de disbiose intestinal nos grupos sucesso e insucesso. Segundo o QRM os pacientes do grupo II apresentaram o item de “saúde muito ruim” (pontuação >100). Este fato pode indicar que o insucesso na perda do excesso de peso foi associado ao score de QRM mais alto.

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Traumatic Facial Injury Treated by Botulinum Toxin A

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Abstract- Introduction: Botulinum toxin type A (BTA) is used in the treatment of various medical and aesthetic conditions. The mechanism of action of the drug includes action on fibroblast stimulation, decrease of wound tension and production of collagen.

Objective: This study aimed to demonstrate the use of botulinum toxin as a possible treatment for reducing facial scarring.

Methods: It was a retrospective study involving patients who were treated with BTA for the management of facial scars.

Conclusion: Botulinum toxin A is efficient for the treatment and reduction of facial scars resulting from trauma or surgical interventions.

Keywords: botulinum toxin A, facial scarring, wound healing, wound tension.

GJMR-I Classification: DDC Code: 616.0472 LCC Code: RB127



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Traumatic Facial Injury Treated by Botulinum Toxin A

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I. INTRODUCTION

Skin lesions by surgeries or trauma results in the formation of scars. Facial scars have psychological effects, as they are impossible to hide, the main clinical objective of the treatment is being to repair the skin and minimize the scar. Surgeons expend time to improve the aesthetic appearance of the skin during repair of trauma or surgery^{1,2}.

However, most techniques used for scar reductions reduce, instead of eliminating, the muscular system acts on the scar. The underlying musculature produce a hard tension over the wound, therefore, these muscles must be paralyzed using botulinum toxin A (BTA). BTA blocks the acetylcholine release at the neuromuscular junction, producing paralysis^{1,3,4,5}.

BTA is useful to treat of various medical conditions, and increasingly used in aesthetic medicine. The action of the drug includes diminish wound tension,

collagen production, and fibroblasts growth. BTA also works inhibiting the presynaptic release of acetylcholine, as it acts at the neuromuscular junction^{2,3,4,5,7}.

The administration of BTA causes muscle paralysis which may last from two to six months. It has been used for medical purposes since the 1980s and the use of BTA in the treatment of pathological scars was first reported in 2000. To date, its mechanism is still not clearly understood. In recent years, an increasing number of doctors have preferred intralesional BTA for the prevention and treatment of hypertrophic scars and keloids combined or not with other therapy^{2,3,4,5,7}.

The mechanism of wound healing is sophisticated and simultaneous process occurs in three stages: inflammation, granulation tissue formation, and matrix formation. If there are changes in these healing stages, it may result in the formation of pathological scars^{1,2,3,7}.

The most important factor that defines the appearance of a scar is the force tension over the wound edges during the healing process. The injection of BTA reduces the perpendicular tension on the wound edges and muscular force over the skin, inhibiting the formation of hypertrophic scars and keloids. BTA allows almost complete inhibition of dynamic muscle tension in the edge of the wound during the healing process^{2,3,5,6,7}. The present study aimed to demonstrate the use of botulinum toxin as a possible treatment for reducing facial scarring.

II. METHODS

This is a retrospective study involving patients treated at clinic who were treated with BTA the management of facial wounds. Qualitative analyses of the evolution of the treated patients were performed. Study approved by the Research Ethics Committee of the Veiga de Almeida University under protocol number 29151320.0.0000.5291.

Clinical Case 1

30-year-old female, had an accident riding a bicycle. She injured her forehead and was treated in the emergency room. On the following day, she went to the clinic concerned with the aesthetic effect of the injury.

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BTA was applied to the entire forehead and perilesional area (4ui per puncture). The treatment was repeated after three months.

One year later, there was minimal scarring in the area, and at the last follow-up, an unapparent scar.



Figure 1: April 2nd, 2011 – One day after the accident. BTA application



Figure 2: August 22nd, 2011 – Four months after the accident. After treatment

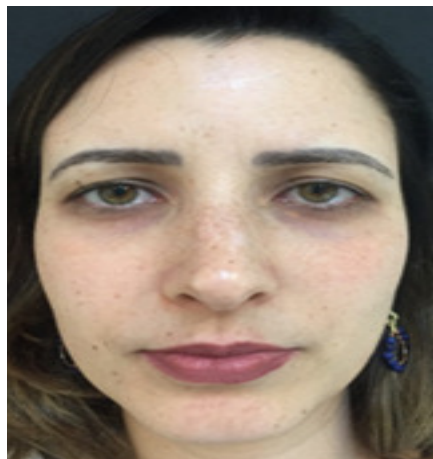


Figure 3: November 2019 – Eight years after the accident. After treatment

Clinical Case 2

30-year-old female, was attacked by a dog that bit her nose. The patient was seen at the clinic 48 hours after the attack. Botulinum toxin A was applied to all

nasal musculature (4ui per puncture in this area). The treatment was repeated after 3 months.

One year later, there was minimal scarring in the area.

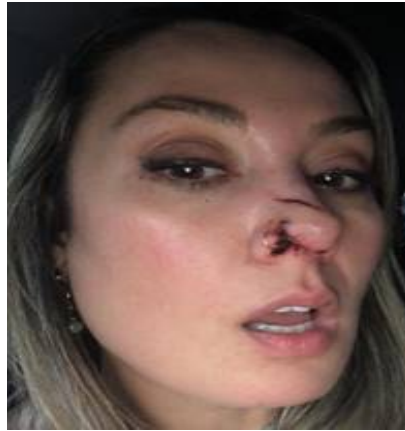


Figure 4: July 13th, 2019 – Injury



Figure 5: July 15th, 2019 – BTA application

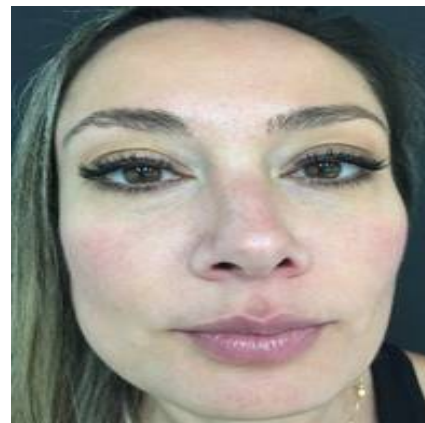


Figure 6: November 29th, 2019 – After treatment

Clinical Case 3

33-year-old female, fell from the stairs and hit a glass door. She came to the Clinic 3 weeks after the accident. At that time she presented scars on the left frontal region and upper left eyelid, as well as scar retraction with enlargement of the scar near the glabellar

region. The patient had some muscle movement in the affected area.

Botulinum toxin A was applied to the affected area and to the scar edges (40ui total of the application), requiring retouching in the regions that showed relief and, also, slight scar movement.



Figure 7: Mar/7/2020 – Wound after stitch removal



Figure 8: Mar/24/2020 - Aftertreatment



Figure 9: Aug/17/2020 - After treatment

III. DISCUSSION

Scars on the face can affect social well-being through a negative image, sometimes inducing psychological disturb. Its possible minimize the scars facilitating healing applying scar care medicine, occlusive or semi-occlusive dressing, high quality suture material and good closure, and avoiding sun exposure⁸.

But, the most important action is reducing the tension on wound edges by applying BTA locally, it may be prevent formation of hypertrophic scars or keloids.

Clinical cases here presented are examples of our experience in recent years using the neuromuscular blockade technique with BTA in facial wounds, which prevents the dynamic movement of the muscles involved, resulting in safe healing and practically

invisible scars. Treatment with BTA was proposed for the treatment of hypertrophic scars and keloids in 2014 and 2015^{9, 10}.

We have used this technique to treat scars since 2011 (the first case mentioned in this study). Movement produces tension on the edge of the wound, which can be avoid injecting BTA in the region, thus reducing muscle contraction, skin tension, microtrauma, and inflammatory process¹¹.

BTA reduce the expression of transforming growth factor-beta, which is the main regulator of the formation of hypertrophic scarring³.

Kim YS et al performed a split-scar, double-blind, randomized, controlled study on 15 patients with early post-thyroidectomy scars. After six months they found a significant improvement in 50% of the scar, comparing the BTA area to the 0.9% saline area¹².

The study of Shaarawy E. et al shows BTA more effective in reducing pruritus and keloid-related pain than intralesional corticosteroids where used to preventing hypertrophic scar¹³.

Moreover, the 3D profilometry used to objectively assess keloids treated with BTA showed a lack of results in some surgical cases. Some clinical studies did not support variations in TGF-beta or fibroblasts after the treatment of scars with BTA. Thus, there are conflicting results from points of view available, and further studies are needed to assess the specific role of BTA in the healing physiology¹⁴.

BTA acts during two to six performing temporary chemodenervation by acting on the presynaptic neuron, blocking the release of acetylcholine, leading to functional denervation of the striated muscle¹⁵.

Regarding of the functional effects of the BTA scar formation maybe takes few months, and our observations of final results depended on the end of the histopathological healing process.

Predictably, the effects of BTA on the maturation of the scar may take more than one month to be visible. Our evaluation, satisfaction and measurement data, demonstrate that the injection of Botulinum Toxin A has a positive effect on scars.

Ziade et al validated scar assessment scales evaluate the healing (texture, size, and color) results of complex wounds, but not to be used in simple facial wounds¹⁶. Injection of BTA improved significantly the discoloration of the scar. Skin lesions invoke an inflammatory response influencing cellular mediators acting over melanocytes and melanogenesis in several ways. The release of nitric oxide, histamine, p53, and transforming growth factor b1 (TGF-b1) by the inflammatory process induces melanogenesis¹⁷.

Post-inflammatory hyperpigmentation is still unclear, it is believed that activation of melanocytes is involved through oxidative species and inflammatory mediators by skin wounded¹⁸.

Since the damage to the skin is caused by repeated microtrauma due to the movement of the injured tissue (skin traction), it provokes a prolonged release of peptide related to the calcitonin gene and substance P, in addition to the cleavage of the SNAP25 protein, by injection of BTA¹⁹. With these factors together we can observe that the stress-relieving properties of BTA added to its inhibiting effects on inflammation support the use of the drug in preventing scarring.

IV. CONCLUSION

Botulinum toxin A is efficient for the treatment and reduction of facial scars resulting from trauma or surgical interventions. This study shows a reduction in the size and pigmentation of scars in patients who were treated with a perilesional injection of BTA, which may be a choice method for avoiding or treat hypertrophic scars and keloids in areas of muscle tension. This study demonstrates good clinical effects of BTA in the treatment and prevention of hypertrophic scars and keloids.

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11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

19. Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.



20. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

21. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

22. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

23. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.



Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.



The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.



Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

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The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."



Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

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Topics	Grades		
	A-B	C-D	E-F
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



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